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IN THE SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1978
NO. 78-1304

AMERICAN SEATING COMPANY,
Petitioner,

v.

NATIONAL SEATING COMPANY,
Respondent,

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

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IN THE SUPREME COURT OF THE UNITED STATES

October Term, 1978

NO.

AMERICAN SEATING COMPANY,
Petitioner,

v.

NATIONAL SEATING COMPANY,
Respondent,

PETITION FOR WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

Petitioner prays that a writ of certiorari issue to review the judgment of the United States Court of Appeals for the Sixth Circuit entered in the above case on September 15, 1978, holding United States Patent 3,729,226 (A 30) invalid.

OPINIONS BELOW

The reported opinion holding United States Patent 3,729,226 invalid and not infringed was entered September 30, 1976, by the United States District Court for the Northern District of Ohio, Eastern Division and published at 457 F.Supp. 444 (A 1).

The reported opinion of the United States Court of Appeals for the Sixth Circuit affirming the invalidity of the United States Patent 3,729,226 ('226) and holding it was unnecessary to reach the other issues raised by the appeal was entered on September 15, 1978, and published at 586 F.2d 611 (A 18).

JURISDICTION

Petitioner seeks review of the Sixth Circuit Opinion dated September 15, 1978, for which a Petition for Rehearing was denied and entered on November 24, 1978. Jurisdiction is conferred on this Court by 28 U.S.C. 1254(1).

FEDERAL QUESTIONS PRESENTED FOR REVIEW

The following questions of law presented by this case have substantial impact and far reaching effect on the United States Patent Laws:

1. WHETHER A PRIOR ART DEVICE WHICH IS SUBSTANTIALLY DIFFERENT IN STRUCTURE BUT FUNCTIONALLY EQUIVALENT TO THE CLAIMED DEVICE OF A PATENT CAN BE AN ANTICIPATION UNDER 35 U.S.C.A. 102(b) SO AS TO INVALIDATE THE PATENT?

2. WHETHER THE COURTS IN DETERMINING THE VALIDITY OF A PATENT UNDER 35 U.S.C.A. 103 CAN DISREGARD EVIDENCE THAT THE DEVICE WAS UNOBVIOUS TO AN ACTUAL PERSON SKILLED IN THE ART BY REASON OF HIS NUMEROUS UNSUCCESSFUL ATTEMPTS TO DESIGN SUCH A DEVICE WITH ALL THE MOST PERTINENT PRIOR ART BEFORE HIM?

3. WHETHER IN THE FACE OF HARD EVIDENCE OF THE FACT THAT A PATENTED COMBINATION WAS UNOBVIOUS TO AN ACTUAL PERSON SKILLED IN THE ART, THE COURT CAN NEVERTHELESS HOLD A PATENT TO SUCH A COMBINATION INVALID BECAUSE IT DOES NOT PROVIDE A SYNERGISTIC EFFECT?

4. WHETHER A PATENT, THE DISCLOSURE OF WHICH IS SUFFICIENTLY CLEAR FOR ANYONE WITH AN ENGINEERING BACKGROUND TO CONSTRUCT, CAN BE HELD INVALID UNDER 35 U.S.C.A. 112 FOR FAILURE TO DESCRIBE PARTICULARLY THAT WHICH IS CLAIMED TO BE INVENTED MERELY BECAUSE THE PATENTEE CONTENDS THAT THE PATENTED DEVICE HAS INHERENT FUNCTIONS NOT REFERRED TO OR CLAIMED IN THE PATENT?

STATUTES INVOLVED

35 U.S.C.A. 102(b), at page 445:

§102. Conditions for patentability; novelty and loss of right to patent

A person shall be entitled to a patent unless

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or . . . .

35 U.S.C.A. 103, at page 715:

§103. Conditions for patentability; non-obvious subject matter.

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

35 U.S.C.A. 112, at page 4:

§112. Specification

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

STATEMENT OF THE CASE

This cause was originally tried under 28 U.S.C. 1338 on Petitioner American Seating's complaint that Respondent National Seating had flagrantly infringed its United States Letters Patent 3,729,226 (A 30) by copying Petitioner's highly successful tubular "inverted T" transit seat as installed in public transportation vehicles such as buses.

The District Court after a several day trial held the '226 patent invalid under (1) 35 U.S.C. 102, because it was antiticpated by the prior art, and (2) 35 U.S.C. 103, because it was obvious to those skilled in the art at the time of the invention. Petitioner appealed and the Sixth Circuit Court of Appeals affirmed the District Court. The Sixth Circuit also mistakenly held that the District Court had held the '226 patent invalid under 35 U.S.C. 112, because it failed to describe particularly that which was claimed to be invented.

The invention of the '226 patent is a meritorious transit seat having an inverted hollow tubular center T-pedestal that replaced and solved the problems of the conventional two-

legged aisle seats. Aisle leg seats throughout the years had created substantial problems which the industry, including the Petitioner and Respondent, attempted to solve with differently designed seats. In these attempts, Respondent designed a round-base, center-mounted seat, the "Tour Coach" (A 34) and Petitioner designed a similar round base seat being known as "American's Round Base." Both of these were unsuccessful. Respondent also designed over a period of two years, during the search for a workable seat to replace the aisle leg seats, several center pedestals PX65, PX66AA, PX69, (A 34) all of which were abandoned. PX69 is almost identical to a cast base constructed earlier for perimeter seating in a vehicle known as the Plane-Mate for transporting airline passengers from the terminal to the airplane (see A 35). Thus, such structures were well known to Respondent and its designer, Edwards, who the Court held was a person skilled in the art. Further, Edwards during all this time had knowledge of a tubular inverted T pedestal on a so-called Mitchell table (A 34). Despite his knowledge of all of these pedestals (see A 34) during his abortive efforts to design a seat to solve the problems of the aisle leg seats, Edwards, who was held by the District Court to be a person skilled in the art, failed to conceive of the '226 invention. It was not until September, 1972 (A 36), a substantial amount of time after early 1971, the date American's invention had been on the market (A 37), that National offered its accused design to the trade. The original design of the National pedestal was a dead copy of American's (compare A 38 and 39). Subsequently, changes were made in an attempt to avoid infringement.

The District Court held and the Sixth Circuit affirmed that the '226 patent was anticipated under 35 U.S.C. 102 by the previous round base seats of National and American despite the fact that a perfunctory comparison of the two disclosed a substantial and significant difference in their pedestal structures (A 40). It held that anticipation was made out because the prior art and the '226 invention were "functionally equivalent." Petitioner contends that such a holding is clearly erroneous as a matter of law.

The District Court also held and the Sixth Circuit affirmed that the '226 patent fails to provide the requisite synergistic effect needed by combination patents for validity under 35 U.S.C. 103. The Sixth Circuit confirmed the fact that the District Court did not consider the evidence involved in Edwards' abortive attempts to design a seat along with his knowledge of the prior art and the subsequent copying by National of the '226 invention. The Sixth Circuit held that it could not find reversible error in the District Court's failure to consider such evidence. Petitioner contends that such a holding is also clearly erroneous as a matter of law.

Because of the errors of law committed by the Sixth Circuit, Petitioner petitions for writ of certiorari. If this erroneous decision is left to stand, the entire law on anticipation and obviousness-unobviousness will be put in turmoil.

ARGUMENT

I. THE SIXTH CIRCUIT DECISION ON ANTICIPATION IS IN CONFLICT WITH ITS CONCURRENT *NICKOLA* V. *PETERSON* DECISION (A 41), THE DECISIONS OF OTHER CIRCUITS, AND THE PATENT STATUTE, AND THEREFORE THE LAW ON ANTICIPATION IS IN STATE OF CONFUSION UNTIL THE SIXTH CIRCUIT DECISION IS REVERSED.

A. Structural Identity, Not Functional Equivalency, Is The Test For Anticipation Under Section 102.

It has been firmly established that distinction should be made between the tests for validity under Sections 102 and 103.

The first test for validity under Section 102 is commonly referred to as the test for novelty or anticipation, i.e., whether or not a single prior art reference discloses all the identical elements of the structure defined by the claims of the patent. As stated by *General Tire & Rubber Co.* v

Firestone Tire & Rubber Co., 349 F.Supp. 345, 356 (N.D. Ohio 1972):

> . . . anticipation cannot be found unless all the elements of the invention are disclosed in a single prior art reference. *Firestone* v *Aluminum Co. of America*, 285 F.2d 928, 929-30, (6th Cir. 1960); *H. K. Porter Co., Inc.* v *Goodyear Tire & Rubber Co.*, 163 USPQ 106, 114-15 (N.D. Ohio 1969), aff'd 168 USPQ 449 (6th Cir. 1971); *Preformed Line Products Co.* v *Fanner Mfg. Co.*, 328 F.2d 265, 271, (6th Cir. 1964).

This maxim is specifically reinforced by the first clause of the second test under Section 103 which provides that:

> A patent may not be obtained though the invention is not *identically disclosed or described* as set forth in Section 102 of this title. . . . [Emphasis added.]

Section 103 then sets forth the test of whether the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

It is therefore very clear that the statute requires the sequence of the tests be first Section 102 and then Section 103. *Nickola* v *Peterson*, 580 F.2d 898, 909 (6th Cir. 1978).

Although the Sixth Circuit in this case applied Sections 102 and 103 in proper sequence, it improperly interpreted such sections so as to produce extreme confusion as to what the Patent Laws require for a valid conbination patent.

After finding significant differences in structure, the Sixth Circuit in the present case held that for anticipation the prior art need only disclose the function and manner of function of the patented device. In other words, the prior art need only be *functionally equivalent* and need not disclose the precise combination of structural elements recited in the

claims. In making this finding the Court at pages 618-619 (A 25-26) held as follows:

> The only significant difference between the seat disclosed by the '226 patent and the round base seats, relates to the shape of the pedestal feet. There is no difference in either the function performed by the tubular inverted "T" pedestal and the round-based pedestal, or in the manner in which the two types of pedestals perform their function. Thus the District Court's finding that the pedestals are equivalents is not clearly erroneous.
>
> In our opinion the District Court's determination that the '226 patent was invalid because it was anticipated, is correct.

This holding of the Circuit Court is directly in conflict with the holding of other Circuits and the Court of Claims. *Tights Inc.* v. *Acme-McCrary Corp.*, 541 F.2d 1047, 1056 (4th Cir. 1976); *Saf-Gard Products, Inc.* v. *Service Parts, Inc.*, 532 F.2d 1266, 1270 (9th Cir. 1976); *Tate Engineering, Inc.* v. *United States*, 477 F.2d 1336 (Ct.Cl. 1973); *Ling-Temco-Vought, Inc.* v. *Kollsman Instrument Corp.*, 372 F.2d 263, 267 (2nd Cir. 1967); *Illinois Tool Works, Inc.* v. *Sweethart Plastics, Inc.*, 436 F.2d 1180, 1182 (7th Cir. 1971). It also conflicts with the almost concurrent Sixth Circuit case of *Nickola* v. *Peterson, supra,* decided four days after the appeal hearing of the present case.

Petitioner contends that Section 102 as well as Section 103 of the Laws are to be interpreted as set forth in the well reasoned and written decision of Judge Markey in *Nickola* v. *Peterson, supra,* and for the reasons as stated therein. In the *Nickola* decision, Judge Markey, a visiting judge from the Court of Customs and Patent Appeals, and a noted jurist and lawyer of outstanding experience and reputation in the Patent Laws, clearly analyzes the background and intended purposes of Sections 102 and 103 of the Patent Laws.

The *Nickola* decision in reversing a holding of "*anticipation*" because there was no evidence of novelty held at p. 907 (A 50) as follows:

> The no-evidence-of-novelty finding cannot stand in the absence of record evidence: (1) that the identical invention, i.e., the *precise combination* of structural elements recited in each claim, "was known or used by others in this country * * * before the invention thereof by [Nickola]" (§102(a)); or (2) that the identical invention recited in each claim was "in public use or on sale in this country, more than one year prior to the date of [Nickola's] application" (§102(b)). No such evidence is of record. [Emphasis added.]

In *Nickola,* the Court specifically overruled a holding of anticipation because the District Court had done exactly what the Circuit Court in this case has done, that is, find no novelty under 35 U.S.C. 102 because there was no new "*function.*" The Court at p. 908 (A 51) condemned this type of analysis as follows:

> The *function* of the combination can be material, *not* on the novelty issue, but on the separate and distinct issue of nonobviousness (35 U.S.C. §103, supra note 9). [Emphasis added.]

The Court then went on to explain at page 908 (A 51) that a new result or function was not necessary for there to be novelty under § 102. In making this explanation it stated as follows:

> . . . The distinction [between novelty and function] is important, for patent law is entirely statutory and *there is not a word in the statute requiring a new result or a new function as a condition of patentability.* Indeed, a requirement that the result must itself be novel would nullify the statutory provision encouraging disclosures of "new and useful improvements thereof." 35 U.S.C. §101.

> Most patents are granted on improvements of prior devices; and the improved device will inherently achieve the same basic result as that achieved, and *will perform the same basic function as that performed, by the prior device.* [Emphasis added.]
>
> The Court then continued on page 911 as follows:
>
> . . . The invention is either new and useful or it is not. The amount of newness and usefulness need be only *minuscule* to avoid a finding of lack of novelty. That *minuscule* difference may or may not indicate that the invention as a whole would have been obvious, but it cannot indicate that the invention was old at the time it was made. So here, a minuscule difference, adding a gas meter, made Nickola's combination novel. [Emphasis added.]

A perfunctory comparison of the round base pedestal and the tubular inverted "T" pedestal of the '226 patent (A 40) discloses indeed, as stated by the Sixth Circuit at p. 617, that there is a significant difference between the pedestals of the seat disclosed by the '226 patent and the round base seat (A 24). Therefore, despite the fact that they may *function* substantially the same, the patented seat is *novel* and the patent issued thereon cannot under any circumstances be considered anticipated under Section 102 by the round base pedestal seats. Such a conclusion is not only strongly supported by *Nickola* v. *Peterson, supra,* but is supported by the facts and holdings of many other previous Sixth Circuit decisions, *Tee-Pak* v. *St. Regis Paper Co.*, 491 F.2d 1193, 1197 (6th Cir. 1974) (publications did not explicitly disclose the invention); *Monroe Auto Equipment Co.* v. *Heckethorn Mfg. & Sup. Co.*, 332 F.2d 406, 414 (6th Cir. 1964) (Court said anticipation belongs only with novelty); *Preformed Line Products Co.* v. *Fanner Mfg. Co.*, 328 F.2d 265, 271 (6th Cir. 1964) (prior art was distinguished from basic structure of patent) and decisions from other circuits. *Tights Inc.* v. *Acme-McCrary Corp., supra; Saf-Gard Products, Inc.* v. *Service Parts, Inc., supra; Tate Engineering, Inc.* v. *United States, supra; Ling-Temco-Vought, Inc.* v. *Kollsman Instrument Corp., supra; Illinois Tool Works, Inc.* v. *Sweethart Plastics, Inc., supra.*

Although the Court cited some of the above decisions in support of its holding of anticipation, all such decisions cited either found the prior art structure to be identical to the patented structure, or found that there was no anticipation in which event the obviousness-nonobviousness issue of Section 103 was then considered. Therefore, despite the use of the phrase in these cases that "all the elements of the invention or their equivalents be found," the cases provide no definition for what is meant by "or their equivalents." Further, none of the cases cited held that "functional equivalency" constitutes an anticipation. To the contrary, the *Nickola* decision at p. 908 (A 51) very succinctly sets forth the logical rationale that merely because a patented combination is "*functionally equivalent*" to the prior art does not make it structurally alike as is necessary for a holding of anticipation.

Therefore, it is respectfully requested that this Court review the holding of the Sixth Circuit on the issue of anticipation in order to eliminate the confusion created by the present decision and the cases which by dicta provide that anticipation is found if "all the elements *or their equivalents*" are found in a single prior art device or description.

II. IN DETERMINING THE VALIDITY OF A PATENT WHICH IS NOT ANTICIPATED BY THE PRIOR ART, THE COURTS IN DETERMINING OBVIOUSNESS-UNOBVIOUSNESS CANNOT DISREGARD EVIDENCE THAT THE DEVICE WAS ACTUALLY UNOBVIOUS TO ONE SKILLED IN THE ART.

As succinctly stated by the *Nickola* decision (p. 909) (A 52), "... novelty alone will not render an invention patentable. Some new and useful inventions are patentable. Some are not. To be patentable a new and useful invention must meet the third requirement—nonobviousness—set forth in 35 U.S.C. §103."

This "statutory formulation," *Graham* v. *John Deere Co.*, 383 U.S. 1, 12, 86 S.Ct. 684, 691 (1966), was enacted by Congress in 1952 to alleviate the difficulty in defining "invention." As noted by the Sixth Circuit in *Nickola* v. *Peterson, supra*, at p. 909, Footnote 20:

> ... Difficulties since 1952 have centered on inapt references to old cases calling on courts to find "invention," and on judicial efforts to supply semantic mechanisms as aids in defining "obviousness." Because inventions differ so widely, application of all such mechanisms to all inventions, as rules of law, would risk destruction of the entire statutory scheme. See note 22, *infra*. Exercise of the judicial process, in determining whether an invention has met the nonobviousness requirement, turns on application of the entire statutory provision, 35 U.S.C. § 103, to all relevant evidence of record.

The Sixth Circuit in the present case suffered the difficulties referred to in its own above quote. It incorrectly latched on to a "semantic mechanism" to define "obviousness" when it held at p. 621 (A 28):

> We agree with the District Court's conclusion that the '226 patent fails to provide the requisite synergistic effect needed by combination patents, for validity.

Further, it erred as a matter of law when it disregarded evidence of actual unobviousness by an actual person skilled in the art at the time the invention was made by stating at p. 622 (A 29):

> The District Court, in resolving the obviousness issue, did not consider and make findings with respect to American's contentions relating to (1) the long felt need for and commercial success of the '226 patent, (2) the failure of National to develop a viable center pedestal passenger bus seat, and (3) National's copying of the tubular inverted "T" pedestal disclosed by the '226 patent, within a short period after American placed it on the market. We find no reversible error in the District Court's failure to take into account these secondary factors in reaching its decision on the question of obviousness in this case.

This holding of the Sixth Circuit on September 15, 1978, is a complete contradiction of its own decision on June 23, 1978, *Nickola* v. *Peterson, supra*, which requires the "*application of the entire statutory provision, 35 U.S.C. §103, to all relevant evidence of record.*" [Emphasis added.]

In discussing the so-called "secondary considerations" referred to in the Supreme Court decision of *Graham* v. *John Deere Co., supra*, Judge Markey in the *Nickola* case at page 911, Note 21, (A 54) stated:

> The adjective "secondary" could not have meant that determination of obviousness-nonobviousness can be made in disregard of step (5) considerations when they are present. Failure to consider all relevant evidence would be both unjust and unjudicious. Moreover, when a conclusion of nonobviousness is reached at step (4) there is no need to consider step (5). Hence, if it were *permissible* to reach a conclusion of obviousness without consideration of the evidence in step (5), the latter would *never* be considered. [Emphasis added.]

The decision then concluded at p. 915, Note 26 (A 58), after logically discussing the *Graham* case and 35 U.S.C. 103.

> When the issue is obviousness-nonobviousness, however, a determination that an invention would have been obvious should be made, as should the determination of any issue in any type of case, *only* after consideration of *all* relevant evidence, see note 21, supra. [Emphasis added.]

Clearly, in view of this *Nickola* decision, the requirement of the Sixth Circuit in June, 1978, is that all relevant evidence be used in determining the issue of obviousness-nonobviousness. This is in complete contradiction to the present appealed holding of the Sixth Circuit on September, 1978, which held that the District Court did not consider all the relevant evidence in making a determination of obviousness-nonobviousness and did not commit reversible error by such failure. The law on this issue is in flux and requires the Supreme Court to clarify the same.

The Sixth Circuit in the present case attempts to justify its disregard of the evidence of actual unobviousness by stating at p. 622 (A 29):

> Although in a close case secondary factors may tip the scales toward patent validity, they cannot save a patent from invalidity when, as in the case here, there is such a plain lack of invention, and obviousness is clear. *Graham* v. *John Deere Co., supra*, 383 U.S. at 35-36; *Kamei-Autokomfort* v. *Eurasian Automotive Prods.*, 553 F.2d 603, 606 (9th Cir.), *cert. denied*, 434 U.S. 860 (1977); *T. P. Labs., Inc.* v. *Huge*, 371 F.2d 231, 236 (7th Cir. 1966).

However, a review of the Supreme Court Decision in *Graham* v. *John Deere Co., supra*, at 86 S.Ct. 703, clearly establishes that all the relevant facts were considered by the Court because they "lend a helping hand to the judiciary," "serve to guard against slipping into use of hindsight," and "serve to resist the temptation to read into the prior art the teachings of the invention in issue." Specifically, the

Supreme Court considered the fact that the invention had eluded one skilled in the art who had long and unsuccessfully sought to solve the problem and it considered the long felt need in the industry. However, it held those facts did not "tip the scales of patentability" because the unsuccessful attempts of one skilled in the art were made before the teachings of the prior art patent reference became available to him. In other words, it held that at the time of the invention such person skilled in the art with the prior art patent before him would have obviously conceived of the patented device. Accordingly, *Graham* v *John Deere Co., supra*, did not hold that relevant facts need not be considered in determining obviousness-unobviousness but to the contrary, in applying Section 103 it considered all the relevant evidence of record. The Supreme Court should review this present case in order to clearly mandate that in making a decision on obviousness, all the relevant evidence should be considered.

The facts which the Court in this case has refused to consider do not relate to the issue of what would be obvious to a hypothetical person having skill in the art or what would be obvious to what *Nickola* v. *Peterson, supra*, p. 911, calls a "legal ghost." *They relate to what an actual person skilled in the art did not obviously do despite the fact he had knowledge of all the prior art.*

Specifically, the record, which the Court in the present case completely disregarded, establishes beyond any doubt that the Defendant before and after the present invention was conceived made extensive efforts to design a center pedestal seat which would replace the aisle leg seats and still have structural integrity and be sufficiently lightweight and of reasonable costs. Defendant's chief designer since 1951, Edwards, was instructed by his superiors in February or March, 1970, to design a center pedestal seat (A 59). During his unsuccessful attempts to design such a seat, *this designer*, which the District Court found at p. 455 (A 12) possessed skill "indicative of the level of ordinary skill in the

art" *was exposed to and had knowledge of all of the prior art relied upon by the Court in its holding of invalidity*. This art (A 34) included the prior art relied upon by the Sixth Circuit to invalidate the '226 patent, i.e., a round base transit seat, a tubular base pedestal used on the Mitchell table, elongated type of pedestal bases such as that shown by PX65, PX66AA, and a cast base almost identical to that of Heywood-Wakefield. All of these various bases were known by this person skilled in the art as he was being pressured by Defendant to develop a center pedestal seat. As testified to by Kastran, an officer of Defendant, bus drivers were constantly pressuring him to design a center pedestal seat (A 60).

> ". . .It was getting to be a hot and heavy subject." (A 60)

Although Edwards was instructed by his superiors in February or March, 1970, to design a center pedestal seat (A 59), it was not until after the subject invention was on the market that the accused design was adopted.* The abortive attempts of Defendant's skilled-in-the-art employee to develop a workable single pedestal seat, during which time he was armed with all the prior art relied upon by the District Court, is unusual evidence that unequivocally supports a holding of actual unobviousness. *Illinois Tool Works, Inc.* v. *Sweethart Plastics, Inc., supra*.

It is submitted the Court should review and reverse the present decision which conflicts not only with the Sixth Circuit's concurrent decision but also with the decisions of other Circuits.

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* October 12, 1972, was the earliest date that can be established by documentation (PX4E, A 61).

III. IN FACE OF THE FACTS THAT THE PATENTED SEAT WAS ACTUALLY UNOBVIOUS TO ONE SKILLED IN THE ART, IT WAS UNNECESSARY FOR THE COURT TO CONSIDER WHETHER THE CLAIMED COMBINATION PRODUCED A SYNERGISTIC EFFECT.

In *Nickola* v. *Peterson*, as previously stated, reference is made to "judicial efforts to supply semantic mechanisms as aids in defining 'obviousness.'" In regards to such "semantic mechanisms," the Court states as follows at p. 909 (A 52):

> . . .Because inventions differ so widely, application of all such [semantic] mechanisms to all inventions, as rules of law, would risk destruction of the entire statutory scheme.

The above statement applies to "semantic mechanisms" utilized by the Court in the present decision. Specifically, the requirement of a "synergistic effect or result" is the "semantic mechanism" utilized by the Court to support invalidity in the present case. The Court in effect used this so-called "semantic mechanism" as a substitute for considering all of the relevant evidence of nonobviousness discussed above.

Petitioner submits that once it is determined as a matter of fact that an actual person skilled in the art at the time of the invention had made unsuccessful attempts to design seats for the same use as the present invention, despite his knowledge at that time of all the prior art relied upon by the Court for invalidity, the use of any "semantic mechanisms" is unnecessary since unobviousness of the invention is conclusive.

It is submitted the Court should review the present decision since to let it stand leaves the entire law on obviousness-unobviousness in a state of flux and confusion.

IV. A PATENT WHICH INCLUDES A DISCLOSURE WHICH IS SUFFICIENT FOR ANYONE WITH AN ENGINEERING BACKGROUND TO CONSTRUCT, IS NOT INVALID UNDER 35 U.S.C.A. 112 FOR FAILURE TO DESCRIBE PARTICULARLY THAT WHICH IS CLAIMED TO BE INVENTED EVEN THOUGH THE PATENTEE PRESENTED EVIDENCE THAT THE PATENTED DEVICE HAS INHERENT FUNCTIONS NOT REFERRED TO OR CLAIMED IN THE PATENT.

Petitioner, during the course of the trial, introduced evidence to support the fact that the patented seat had certain inherent energy absorption and safety characteristics which were not referred to or claimed in the '226 patent. Petitioner does not base patentability on such characteristics but presented evidence concerning the same merely for the enlightenment of the Court. In response to this evidence of the inherent characteristics, contrary to what the Sixth Circuit contends in its decision on p. 613 (A 20), the District Court merely stated at p. 457 (A 14):

> Since the '226 patent is silent in regards to any feature of energy absorption or safety features, such considerations cannot be considered by this Court. *If* plaintiff bases patentability of its patent on these features, the patent is invalid as failing to particularly point out and distinctly claim that which it alleges is the subject matter of its patent pursuant to Title 35 U.S.C. §112. [Emphasis added.]

In view of this holding and Petitioner's disclaimer of basing any patentability on such characteristics, the issue of validity under Section 112 should be moot. Nevertheless, the Sixth Circuit held the patent to be invalid "because it failed to describe particularly that which was claimed to be invented under 35 U.S.C. 112." In making such a holding, there is no explanation or reasons for the same in the decision. Therefore, it is very confusing. Whatever may be the reason, such holding is in error as a matter of law.

The holding is very confusing because Section 112 contains no language to the effect that a patent must "describe particularly that which is claimed to be invented." Even if it could be interpreted as requiring in the first paragraph of Section 112 that the description must describe that which is in the claims, since the record clearly establishes the claims are silent in regards to energy absorption or safety features, the description need not mention the same.

The first paragraph of Section 112 requires the specification to contain a "written description . . . in such full, clear, concise and exact terms as to enable any person skilled in the art . . . to make and use the same, ..."

The record clearly establishes that the written description of the invention is full, clear, concise and exact so that one skilled in the art can construct it. Specifically, Edwards, testified as follows (A 62-63):

> Q Have you read the Barecki Patent which is involved in this present suit?
> A I have gone through it, yes.
> Q Do you think you could make a seat like that from that description?
> A I don't see why not. Anybody could, with any background, engineering background could.

Therefore, the first paragraph of Section 112 is satisfied as a matter of fact and law. As stated in *Tillotson Mfg. Co. v. Textron, Inc., Homelite*, 337 F.2d 833, 840 (6th Cir. 1964), "the test is whether the disclosures make the invention clear to a mechanic skilled in the art so that he could construct the carburetor and use it."

The second paragraph of Section 112 does not apply to the Sixth Circuit holding. It requires that the specification shall conclude with "claims particularly pointing out and distinctly claiming" the invention whereas the invalidity holding is based on failure "to describe particularly that which was claimed."

CONCLUSION

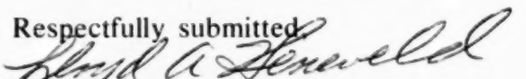
The Sixth Circuit Court of Appeals, by affirming the decision of the District Court on the Patent Law issues of "anticipation" under Section 102 and "obviousness" under Section 103 has placed the law on these issues in a state of flux and confusion and has created a conflict not only within its own circuit but between the circuits, the other federal courts, and with prior decisions of the United States Supreme Court.

The test for anticipation is clearly a question of novelty, that is, whether or not a single prior art reference discloses the precise combination of elements recited in the claims. Functional equivalency of the elements is not sufficient to negate novelty. Once it is determined that anticipation is lacking, the question is one of "obviousness-unobviousness," that is, whether the differences between the prior art and the subject matter sought to be patented are such that the subject matter as a whole would have been obvious to one skilled in the art at the time the invention was made. The determination of the question of "obviousness-unobviousness" should be made only after consideration of all relevant evidence. If after considering all relevant evidence, a determination is made that as a matter of fact the invention was not obvious to an actual person skilled in the art, all "semantic mechanisms" such as whether a combination gives a "synergistic effect or result" should be ignored. Neither should such "semantic mechanisms" be used as a substitute for considering all the relevant evidence on unobviousness.

The Sixth Circuit in this action did not follow the above in reaching a decision on validity and, as a result, committed reversible error. Further, its decision holding the patent in suit invalid for failure to comply with Section 112, is in error as a matter of law. Therefore, a review by the United States Supreme Court will lead to a reversal of the Sixth Circuit Court of Appeals in the present case.

Because the issues under Sections 102 and 103 arise frequently, both in the United States Patent and Trademark Office and in the courts, its review by the United States Supreme Court is imperative. Therefore, writ of certiorari to the Sixth Circuit Court of Appeals is respectfully solicited.

Respectfully submitted,



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Supreme Court, U. S.
FILED
FEB 22 1979
MICHAEL RODAK, JR., CLERK

IN THE SUPREME COURT OF THE UNITED STATES

OCTOBER TERM 1978

NO. 78-1304

AMERICAN SEATING COMPANY,
Petitioner,
v.
NATIONAL SEATING COMPANY
Respondent.

APPENDIX

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Attorneys for Petitioner
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mentioned above—might have had a special place in her heart or mind for Kodak. It is difficult to know how defendant now imagines there is merit in complaining about the excused juror or the other attendant events. See *United States v. Houlihan*, 332 F.2d 8, 13 (2d Cir.), cert. denied, 379 U.S. 828, 85 S.Ct. 56, 13 L.Ed.2d 37 (1964); *United States v. Pacente*, 503 F.2d 543 (7th Cir.), cert. denied, 419 U.S. 1048, 95 S.Ct. 623, 42 L.Ed.2d 642 (1974). See also *United States v. Rodriguez*, 545 F.2d 829 (2d Cir. 1976), cert. denied, 434 U.S. 819, 98 S.Ct. 58, 54 L.Ed.2d 74 (1977); *United States v. Diggs*, 173 U.S.App.D.C. 95, 522 F.2d 1310 (1975), cert. denied, *Floyd v. U. S.*, 429 U.S. 852, 97 S.Ct. 144, 50 L.Ed.2d 127 (1977); *United States v. Maxwell*, 383 F.2d 437, 443 (2d Cir. 1967), cert. denied, 389 U.S. 1057, 88 S.Ct. 809, 19 L.Ed.2d 856 (1968); *United States v. Woodner*, 317 F.2d 649 (2d Cir.), cert. denied, 375 U.S. 903, 84 S.Ct. 192, 11 L.Ed.2d 144 (1963).

In these circumstances, with all deference to distinguished counsel, it may be that this bare assertion of fatal error at this time in this civil case by this party is unlikely to be remembered as an ornament in the judicial process.

Defendant's motions are in all respect denied.

It is so ordered.

AMERICAN SEATING COMPANY, Plaintiff,

v.

NATIONAL SEATING COMPANY, Defendant.

Civ. A. No. C75-63A.

United States District Court, N. D. Ohio, E. D.

Sept. 30, 1976.

Action was instituted on complaint for alleged patent infringement and on counterclaim for alleged noninfringement and invalidity. The District Court, Contie, J., held that claims 1-6 of patent No. 3,729,226 relating to a multiple passenger transit vehicle chair comprised of a frame with an aisle side and a wall side and a single pedestal for support were invalid as anticipated by prior art, as obvious to those skilled in art at time of invention and, if based in part or in whole upon inherent safety factors, as failing to particularly describe that which is claimed therein.

Judgment for defendant.

Judgment affirmed, Cir., —— F.2d ——.

1. Patents ⇐328(2)

Claims 1-6 of patent No. 3,729,226 relating to a multiple passenger transit vehicle chair comprised of a frame with an aisle side and a wall side and a single pedestal for support was invalid as anticipated by prior art, as obvious to those skilled in art at time it was invalid, and as failing to particularly describe that which was claimed to be invented. 35 U.S.C.A. §§ 102, 103, 112.

2. Patents ⇐72(1)

Patent on product was subject to being invalidated and anticipated by prior art where it was equivalent to prior patented product in that it performed substantially same function in substantially same manner. 35 U.S.C.A. § 102.

3. Patents ⇐75, 80

Prior uses and sales of product that were not experimental but were basically designed to test commercial market and to promote product were "public uses" and were such as to invalidate patent on product when anticipated by prior art. 35 U.S.C.A. § 102.

4. Patents ⇐18

Prior art patents may be combined to determine issue of obviousness. 35 U.S.C.A. § 103.

5. Patents ⇐18

In considering issue of obviousness, scope and content of prior art are to be determined, differences between prior art and claims at issue are to be ascertained, and level of ordinary skill in pertinent art resolved. 35 U.S.C.A. § 103.

6. Patents ⇐18

Patent on product was subject to being invalidated for obviousness where product was the functional equivalent of prior patented product, did not function in any new or different mode, and did not provide any new or different result. 35 U.S.C.A. § 103.

7. Patents ⇐18

Obviousness in view of prior art is established where there is nothing in record which indicates any new or unexpected cooperative result in patent in issue and that there is, therefore, no synergistic result produced by patent. 35 U.S.C.A. § 103.

8. Patents ⇐26(1¼)

A combination which simply rearranges old elements with each performing same function it has been known to perform is not patentable. 35 U.S.C.A. § 103.

9. Patents ⇐112.1

Where prior art cited and applied by examiner during course of prosecution of patent in suit was not best prior art, presumption of validity was weakened, as opposed to strengthened. 35 U.S.C.A. § 103.

10. Patents ⇐118.5

Consideration of safety factors was inappropriate as a justification for patentability of invention relating to a multiple passenger transit vehicle chair in that asserted inherent safety features of design necessarily related to such elements as tensile strength, gauge, size, shape, and type of material used in upright column and foot, elements as to which invention was silent. 35 U.S.C.A. § 112.

11. Patents ⇐118.3

If safety considerations are asserted as a basis for patentability of invention, there must be sufficient description in patent to substantiate said claims and to delineate for future inventors that area which is claimed to be within patent. 35 U.S.C.A. § 112.

12. Patents ⇐118.3

Since patent on multiple passenger transit vehicle chair was silent in regard to any feature of energy absorption or safety features, such considerations could not be considered by court in determining patentability and, if patentee based patentability on such features, patent was invalid as failing to particularly point out and distinctly claim that which it alleged was subject matter of patent. 35 U.S.C.A. § 112.

13. Patents ⇐314(2)

Issue of infringement of patented product was moot in view of finding that patent was invalid, but in the interest of judicial economy, the court would consider the evidence presented and make factual determinations on the issue of infringement.

14. Patents ⇐234

Plaintiff could not on the one hand urge a narrow construction concerning the validity of its patented product and on the other hand a broad interpretation in asserting infringement of its product by defendant.

15. Patents ⇐234

Consistent readings of the patent in issue must be utilized by the court in determining both validity and infringement.

16. Patents ⇐157(1), 162

A patentee can be his own lexicographer and, thus, can utilize his own terms and define them for use in his patent as long as he remains consistent with his position.

17. Patents ⇐165(3)

General and normal definition of term "transit" as used by plaintiff in its patent for a multiple passenger transit vehicle chair would apply to both intercity and intracity bus seating field and, therefore, would include both stationary back and recliner back seats in determining whether patent was infringed by any other product.

18. Patents ⇐236(2)

If patent for a multiple passenger transit vehicle chair was valid, there would in fact be infringement by chairs manufactured by defendant, but only for those chairs on models in which pedestals were placed at a center or intermediate position, not for those models in which pedestals were placed in an aisle position.

F. Rush McKnight, Calfee, Halter & Griswold, Cleveland, Ohio, Lloyd A. Heneveld, Grand Rapids, Mich., for plaintiff.

Charles B. Lyon, John W. Renner, Donnelly, Maky, Renner & Otto, Cleveland, Ohio, for defendant.

MEMORANDUM OPINION AND ORDER

CONTIE, District Judge.

The above captioned cause of action came on for trial before this Court from February 13, 1976 through February 25, 1976. The following shall constitute this Court's findings of fact and conclusions of law, pursuant to Rule 52(a) of the Federal Rules of Civil Procedure.

THE PARTIES

Plaintiff American Seating Company (hereinafter American) brings this action asserting patent infringement of its United States Letters Patent No. 3,729,226 (hereinafter '226) issued April 24, 1973, against defendant National Seating Company (hereinafter National). Defendant has answered American's complaint, alleging noninfringement and invalidity, and has counterclaimed asserting the same defenses.

Plaintiff is a Delaware corporation, having its principal place of business in Grand Rapids, Michigan. Chester J. Barecki, the inventor of the '226 Patent, is an employee of American who has been involved in the transportation field since the 1940's.

Defendant National is a subsidiary of National City Lines. National makes only recliner type inter-city passenger bus seats today, although at one time it made both intra-city and inter-city type bus seats.

PENDING MOTIONS

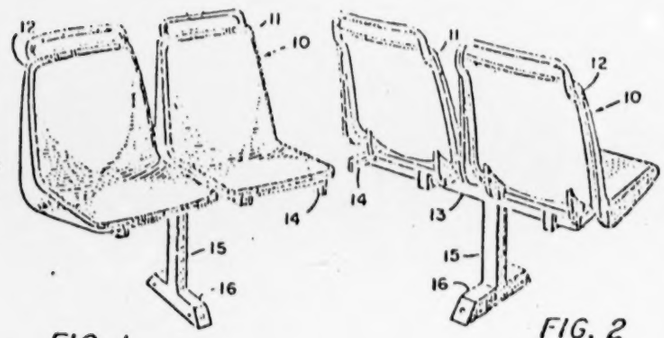
There are presently pending before this Court plaintiff's motion for payment of expenses concerning the post trial deposition of Mr. Barecki and defendant's motion to strike portions of said deposition.

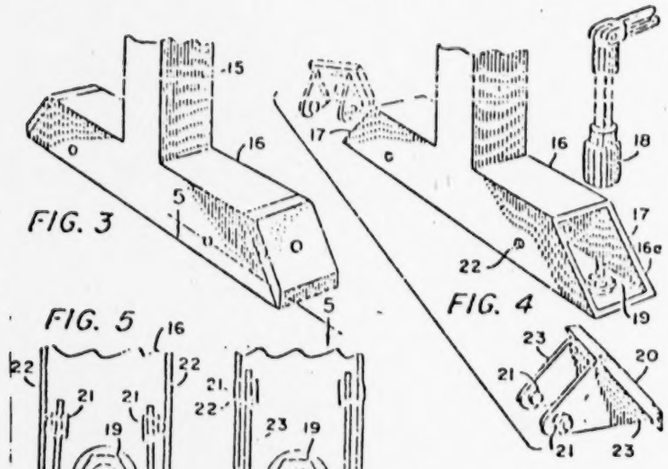
During trial it was brought out that defendant had sent the wrong model seats to plaintiff for certain tests to be performed for trial. Upon learning of this, the Court ordered defendant to supply the appropriate seats, and further allowed plaintiff to conduct tests and further depose Mr. Barecki concerning those tests. Upon consideration, the Court shall grant plaintiff's motion for an award of expenses in the amount of Three thousand, two hundred ninety-seven dollars ($3,297.00) only. The remainder of plaintiff's motion is denied.

THE '226 PATENT

The '226 Patent (see diagram, next page) was designed by Mr. Barecki around April, 1970. Said patent contains six claims, Claims 1 and 6 being independent, and Claims 2 through 5 being dependent upon Claim 1. Said claims disclose two side-by-side seats, 11 and 12, which are both mounted upon a beam 13. Said beam 13 is provided at one end with an angle iron 14 for connecting the beam to a vehicle wall. The beam 13 is supported at its center by a pedestal which includes an upright column 15. The bottom of column 15 is provided with a tubular foot 16, extending fore and aft of the vehicle. The ends of the tubular foot 16 are cut on a 45 degree bias as shown at 17 to define access openings in the tubular foot leading to the fastening bolts used to secure foot 16 to the floor. The access apertures may be selectively covered by plates 20 which are releasably retained in positions by a U-shaped spring plate 23, having lugs 21 received in apertures 22 in the foot 16.

Patented April 24, 1973 3,729,226





INVENTOR
Chester J. Barecki

BY Dawson, Tilton, Fallon and Lungmus
ATTORNEYS

It is the assertion of plaintiff that said structure provides the advantages of better clearance between seats, resulting in ease of cleaning the floor, increased leg room, increased storage space, and provides ease and safety in egress and ingress to the passengers.

The specific claims in issue of the '226 Patent read as follows:

"Claim 1

"A multiple-passenger transit vehicle chair comprising: a chair frame with an aisle side and a wall side, said frame supporting a plurality of passenger chairs side-by-side, mounting means on said wall side of said frame for securing said frame to a vehicle wall; a single pedestal cooperating with said wall to support said frame, said pedestal being spaced at an intermediate location between said wall side and said aisle side of said frame and including an upright column rigidly connected at its top to said frame; a hollow tubular foot member integral with the bottom of said column and extending forwardly and rearwardly therefrom, said foot having a generally flat bottom plate resting on the floor of said vehicle and provided with a bolt hole adjacent each end thereof to receive floor fastening bolts securing said foot to the vehicle floor at forward and rearward positions relative to said column, said tubular foot member further defining forward and rear access apertures adjacent their associated bolt holes to permit access to said fastening bolts when they are received in said bolt holes; said first and second closure means removably attached to said foot to cover said access apertures of said foot member respectively and cooperating with said hollow foot member to enclose said fastening bolts when said closures are assembled to said foot while permitting unrestricted tool access to said fastening bolts when said closures are removed.

"Claim 2

"The structure of Claim 1 wherein said column of said pedestal is located at the approximate longitudinal and transverse center of the seat portion of said frame and wherein said mounting means comprises flange means attached to said frame for securing the same to the vehicle wall.

"Claim 3

"The structure of Claim 1 wherein said tubular foot member has a rectilinear cross section with open forward and rear ends providing said access apertures, said access apertures extending at an inclination relative to the horizontal from the bottom plate of said foot member upwardly and towards said column member, thereby permitting vertical as well as side tool access.

"Claim 4

"The structure of Claim 1 wherein said frame comprises a cross beam extending longitudinally of said chair, and wherein said mounting means comprises a rail carried by said cross beam, said structure further comprising a pair of seats mounted upon said cross beam in side-by-side relation.

"Claim 5

"The structure of Claim 3 wherein said closure means comprise first and second end plates covering respectively said front and rear inclined access apertures of said hollow rectilinear foot member.

"Claim 6

"A two-passenger transit vehicle chair comprising: a chair frame with an aisle side and wall side, first and second chairs carried by said frame in side-by-side relation; mounting means securing the wall side of said frame to an upright vehicle wall; a single pedestal supporting said frame and including an upright column member connected to said frame at its approximate longitudinal midpoint and an integral hollow tubular foot member extending fore and aft of said chair from the bottom of said column member, said wall mounting means and said pedestal being the only support for said frame and said chair, said foot having a generally rectilinear cross section and having forward and rear open ends defining forward and rear access apertures, each of said open ends being inclined from the bottom of said foot upwardly and towards said column; first and second fastening bolts attaching said foot member to said floor of said vehicle at locations adjacent respectively said forward and rear access apertures, said bolts extending at least partially within said hollow foot members; and first and second cover members releasably attached to said hollow foot member to cover respectively said forward and rear access apertures, said access apertures extending from the side of an associated fastening bolt over and above the same to permit unrestricted tool access to a fastening bolt when the associated cover is removed."

PLAINTIFF'S AND DEFENDANT'S ARGUMENTS

Plaintiff asserts that its patent is valid and defendant's seat models 1059, 1060, the "Old 1070", and the "New 1070"[1] infringe the patent in suit. Plaintiff asserts that Models 1059 and 1060 were sold in 1973 and directly infringe upon the patent in suit as well as both the New and Old Model 1070 developed generally in 1973 and sold in 1974 and 1975, which also read directly upon the patent in issue.

Plaintiff further alleges that the National models mentioned above are essentially copies of the '226 Patent and further claims that National's seat design and development were copied from American's patented product.

Defendant asserts that plaintiff's patent is invalid pursuant to Title 35 U.S.C. § 102 as it was anticipated by the prior art and was obvious pursuant to Title 35 U.S.C. § 103 to one skilled in the art at the time the invention was assertedly made. Finally, defendant argues that plaintiff should be estopped from asserting infringement against defendant because of plaintiff's conduct before the Patent Examiner in failing to point out the best prior art available.

Further, defendant National asserts that the development of its seat models and foot designs were independent of any development or patent of plaintiff.

VALIDITY

[1] Upon consideration and as will be discussed below, it is the determination of this Court that the patent in suit, United States Letters Patent No. 3,729,226, is invalid as it was anticipated by prior art, was obvious to those skilled in the art at the time it was invented, and further as it fails to particularly describe that which is claimed to be invented.

The Court turns first to the issue of validity of the '226 Patent under Title 35 U.S.C. § 102. Title 35 U.S.C. § 102 reads, in pertinent part, as follows:

"A person shall be entitled to a patent unless—

"(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

"(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States . . ."

This section of the Patent Law has been generally referred to as anticipation. As stated by the Sixth Circuit in the case of

1. Defendant's "Old 1070" includes a foot with a 45 degree angle cut at its ends defining an access aperture to a bolt hole for a bolt fastener. The "New 1070" includes a foot with a straight cut end and a welded flange attached thereto. Since the 1070 model thus encompasses two different foot designs, which this Court finds to be of possible consequence to a finding of infringement (see discussion below), they shall be dealt with separately.

Allied Wheel Products v. Rude, 206 F.2d 752, 760 (6th Cir. 1953):

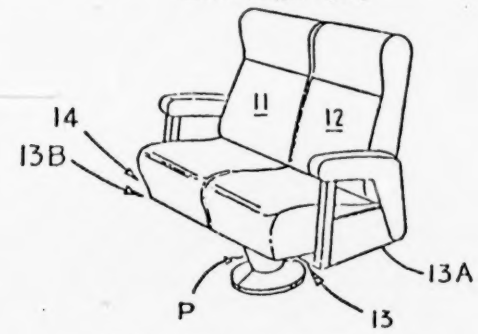
"In order to anticipate an invention, it is necessary that all the elements of the invention or their equivalents be found in one single description or structure, where they do substantially the same work in substantially the same way."

Plaintiff asserts that none of the prior art cited to the examiner nor any of that presented by defendant at trial illustrates all of the elements of the invention in one single description.

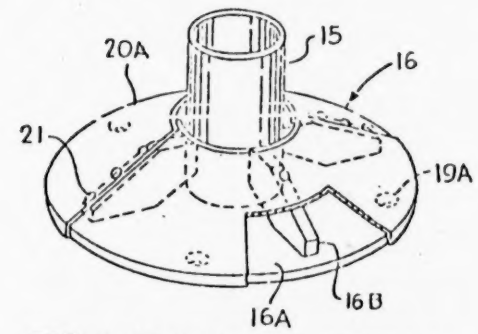
As stated by plaintiff in its brief:

"The elements of the Barecki patented chair cannot be found in any one alleged prior art reference cited by National. Not one of the alleged references including the Greyhound Tour Coach seat, the American rounded base pedestal seat, National's 1025-31 seat, National's 1039, 1040 seat, Heywood Wakefield's pedestal, Mitchell's table, Howell's sequence seating, the S. Karpen seat, and the remaining others of the 46 alleged references discloses the combination of (1) a frame supporting a plurality of chairs side-by-side; (2) a mounting means for securing the wall side to a vehicle wall; and (3) a special single pedestal specifically defined in the claims as including an upright column, and a hollow tubular foot member integral with a column. Further, none of such alleged references show such a combination with the hollow tubular foot member extending forwardly and rearwardly from the column and having a flat bottom plate with bolt holes at the ends securing the foot to the vehicle floor at the forward and rearward positions, said foot also having access apertures adjacent the bolt holes to permit access to the bolts, and said foot having closure means removably attached to the foot to cover the access apertures of the foot member and cooperating with the foot members to enclose the fastening bolts when the closures are assembled to the foot while permitting unrestricted tool access to the fastening bolts when the closures are removed." Plaintiff's Post Trial Brief filed May 3, 1976, pages 87 to 88.

However, defendant asserts that there are several seats which have been designed, manufactured and sold which anticipate the '226 Patent. The first such seat is known as the Greyhound Tour Coach Seat, (see diagram next page) manufactured, designed and sold by National to Greyhound. Said Tour Coach seat includes side-by-side recliner seats 11 and 12 supported on frame beam 13, having aisle side 13-A and wall side 13-B and mounting means 14 provided to secure the wall side of the frame to the vehicle wall. Frame 13 is also supported by a pedestal P, including a column 15 and a foot 16. Such foot 16 includes a circular bottom plate 16-A welded to the bottom of the upright column and four spaced gussets 16-B interconnecting the column 15 and the bottom plate 16-A. The bottom plate 16-A has four equally circumferentially spaced countersunk mounting holes 19-A therein to receive fasteners to secure the same to the vehicle floor. The foot 16 is selectively covered by a two-piece shroud 20, 20-A, joined by screws 21, such shroud acting to conceal the four spaced fasteners. The above described pedestal P can be positioned at the center of the seat frame for some seats or in an intermediate position between the center of the frame and the aisle side for other seats.



NATIONAL CENTER PEDESTAL
TOUR COACH SEAT (1955-6)



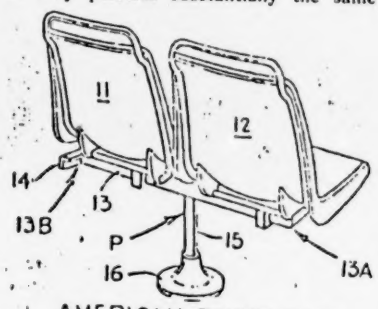
DETAIL OF NATIONAL'S PEDESTAL
FOR TOUR COACH SEAT

The Tour Coach seat was developed by National in 1955 and 1956, and was sold to Greyhound. The Court specifically finds that said seat was not experimental in nature and was, in fact, sold through regular means by defendant to Greyhound for use on a transit vehicle. Further, this Court specifically finds that the Tour Coach center pedestal seat includes all of the advantages asserted by plaintiff in its patent, including aesthetic considerations, ease in cleaning, increased leg and storage room, increased ease in maintenance, and increased ease for passenger ingress and egress.

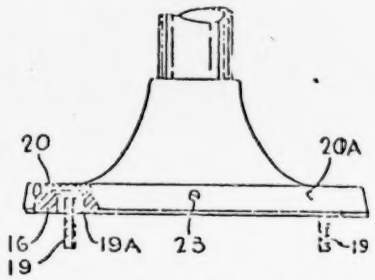
[2] This Court does not agree with plaintiff's analysis of the prior art. As stated above, the Greyhound Tour Coach seat provides for a frame supporting a plurality of chairs side-by-side and a mounting means for securing the wall-side to a vehicle wall. Further, said seat provides for a single pedestal, including an upright column. It thus appears that plaintiff's argument regarding the lack of anticipation is based upon its contention that the tubular foot of the '226 Patent is distinguishable from the round base foot of the Greyhound Tour Coach seat. It is the determination of

this Court that said assertion is untenable and an insufficient basis upon which to distinguish the prior art. The tubular foot of the '226 Patent and the round based pedestal of the Greyhound Tour Coach seat are found to be equivalents of one another as they perform substantially the same function in substantially the same manner. *Tee-Pak v. St. Regis Paper Co.*, 491 F.2d 1193 (6th Cir. 1974).

Further, this Court finds that American's 1969 round based center pedestal seat with concealed fasteners anticipates the '226 Patent in suit. (See diagram below.)



AMERICAN ROUND BASE CENTER PEDESTAL SEAT (1969)



DETAIL OF AMERICAN ROUND BASE PEDESTAL AND COVER

Such seat includes two side-by-side transit seats 11 and 12 mounted on a tubular beam 13, having an aisle-side 13–A and a wall-side 13–B. Such wall-side of the frame is provided with a flange means 14 to secure the frame to the vehicle wall. The center pedestal P is provided to support frame 13 in conjunction with the wall mount, such pedestal including an upright cylindrical tubular column 15 and a cast foot 16 extending fore and aft of such column. Such foot 16 includes a plurality of counter-sunk holes 19–A adapted to receive floor fasteners 19 to secure the pedestal to the floor. The cast foot was selectively covered by a two-piece stainless steel shroud 20, 20–A interconnected by screws 23, such shroud acting to conceal the fasteners.

The only difference between American's round based center pedestal seat and the seat disclosed in the '226 Patent consists of the use of a round based foot instead of a tubular foot. Otherwise the 1969 round based pedestal seat is identical to the seat disclosed in the 1971 patent application, as was admitted by Mr. Barecki during his testimony.

It is the determination of this Court that said center pedestal seat offers all of the advantages asserted by plaintiff to be in its '226 Patent, i. e. ease in egress and ingress, ease in cleaning, and better storage and foot space. Further, it is the determination of this Court that the evidence and testimony establishes that American's round based center pedestal seat was sold to General Motors in October of 1969 as evidenced by Defendant's Exhibit EJ and another sale of such seats was made to General Motors in May and June of 1970, as evidenced by Defendant's Exhibit EO. It is the conclusion of this Court that said seats were sent to General Motors for installation in a bus for actual demonstration purposes to the public, and that such seats were billed and paid for and were not provided for testing purposes, nor were they provided under any secrecy agreement. As was stated by the Sixth Circuit in the case of *Minnesota Mining & Manufacturing Co. v. Kent Industries, Inc.*, 409 F.2d 99, 100 (6th Cir. 1969):

"It is settled law that a single public use [citation omitted], or only a placing on

sale [citation omitted] is sufficient to invalidate a patent under 35 U.S.C. § 102(b)."

[3] This Court is convinced that the prior public uses and sales by American to General Motors were not experimental but were basically designed to test the commercial market and to promote American's product. See *Cataphote Corp. v. DeSoto Chemical Coatings, Inc.*, 235 F.Supp. 936 (N.D.Cal.1964), aff'd, 356 F.2d 24 and 358 F.2d 732 (9th Cir. 1966), cert. den., 385 U.S. 832, 87 S.Ct. 71, 17 L.Ed.2d 67 (1966). See also *Smith et al. v. Sprague*, 123 U.S. 249, 8 S.Ct. 122, 31 L.Ed. 141 (1887); *Solo Cup Co. v. Paper Machinery Corp.*, 240 F.Supp. 126 (E.D.Wis.1965), reversed in part on other grounds, 359 F.2d 754 (7th Cir. 1966); *Dunlop Co. Ltd. v. Kelsey-Hayes Co.*, 484 F.2d 407 (6th Cir. 1973).

As plaintiff has failed to illustrate any functional difference between the round based foot and that claimed in the '226 Patent, and as this Court is unable to find any, this Court finds that said feet are equivalents. It is, therefore, the determination of the Court that the American 1969 Round Base Pedestal seat anticipates the '226 Patent.

Therefore, this Court finds that both the Greyhound Tour Coach seat and the American 1969 Round Base Pedestal seat anticipate the '226 Patent in suit.

The Court next turns to the issue of obviousness under Title 35 U.S.C. § 103. Assuming, arguendo, that plaintiff's patent was not anticipated, it is the determination of this Court that said patent is invalid as it would have been obvious to one skilled in the art at the time the invention was made under Title 35 U.S.C. § 103. Said section provides:

"A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made."

[4] Prior art patents may be combined pursuant to this section to determine the issue of obviousness.

"It is well settled that claims may be properly rejected on a combination of several patents taking specific features from each. It is not necessary that a complete disclosure be contained in a single reference." *Application of Bisley*, 197 F.2d 355, 362, 39 CCPA 982 (1952)

Further:

"All elements of the prior art have a bearing upon the question of invention; it being unnecessary to a finding of lack of invention that every element be found in one embodiment." *Ohmer Fare Register Co. v. Ohmer et al.*, 238 F. 182, 187 (6th Cir. 1916)

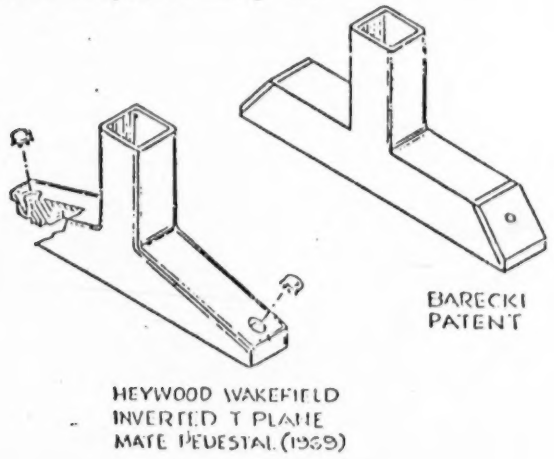
The Court must first note that plaintiff's patent is addressed to a combination of old elements. There is no question that placing two chairs side-by-side on a frame attached to a beam supported by some means was known in the prior art. There is no question that it was known in the art that transit vehicle seats could be supported by attaching one side to the wall while providing a support for the remainder of the seating arrangement. Further, there is no question that seat manufacturers skilled in the art at the time that the invention was claimed to have been made were aware of a single pedestal seat supports for seating.

Specifically, Mr. Barecki had worked on the BART (Bay Area Rapid Transit) project which used cantilevered and semi-cantilevered seats. The Steinbeck Patent 1,096,518, the Del Giudici Patent 3,480,240, the Krehbiel Patent 474,666, and the Kohler Patent 1,281,793, all prior art patents, provide for center of intermediate pedestal seats. Further, inverted T Pedestals were known in the seating art previous to the date of the invention. See the Blink Patent 198,218 and Howell sequence seating chairs. The Hozeski and Barecki Patent 3,567,281

disclosed an inverted T-type pedestal which illustrates advantages concerning maintenance reduction and concealed fasteners to avoid dirt collection. The Greyhound Tour Coach seat, the BART seats, National's 1040 leg, the plugs used in the Heywood Wakefield Plane Mate seat, and the stainless steel cover used by American on its round base center pedestal seat all illustrate the use of selectively covered floor fasteners.

It is the determination of this Court that the prior art shows the entire combination as reflected in the '226 Patent. All of the elements of the patent were old. Further, the elements used by Mr. Barecki in the '226 Patent were all present in the art directly related to transportation seating field or to furniture products field in American Seating's line.

As noted above, the only significant difference between the '226 Patent and the prior art is the structure of the support column and the foot of said patent. It is the opinion of this Court that the design of plaintiff's column and foot on the '226 Patent is obvious in light of the Heywood Wakefield inverted T Plane Mate pedestal (see diagram below). The Wakefield pedestal includes a tubular type upright to support chairs or seats and a channel shaped foot extending fore and aft therefrom. Such foot is provided with base plates at each end thereof, such base plates being provided with holes to receive floor fasteners.



Access is provided to such floor fasteners by the foot defining fore and aft inclined apertures which are selectively covered by caps held in place by spring fingers.

The evidence illustrates that this pedestal was used in a Plane Mate Mobile Lounge in November of 1969, and that such pedestal and the lounge in which they were used were publicly demonstrated in Port Washington, Pennsylvania. It further appears from the evidence received that Heywood Wakefield was selling these pedestals for large production runs as of August, 1969.

[5] The test as to obviousness has been set forth by the Supreme Court in the leading case of *Graham v. John Deere Company*, 383 U.S. 1, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966). Therein the Court stated:

"Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. *Graham v.*

John Deere Company, 383 U.S. 1, 17, 86 S.Ct. 684, 694, 15 L.Ed.2d 545 (1966)

Pursuant to the test established by the Supreme Court in the *John Deere* case, this Court finds that as a matter of fact the research and development personnel of both National and American are indicative of the level of ordinary skill in the art of transit seating. Mr. Barecki, Mr. Edwards and Mr. Owens have all been involved in the transportation seating industry since the late 1940's. Further, it appears from the record that Mr. Barecki, Mr. Hogan and Mr. Hozeski have had extensive experience in the field of furniture products including theater and sequence seating. It is the determination of this Court that the experience in the general seating and furniture fields can easily be applied from one area to another.

This Court is of the determination that plaintiff's patent would have been obvious to those skilled in the art at the time the invention is claimed to have been made. The Court bases this determination upon consideration of the American round base pedestal, National Tour Coach seat, the Howell sequence seating seats, the Heywood Wakefield inverted T Plane Mate Pedestal, as well as the other prior art patents mentioned above.

The Court finds that said seats and prior art patents clearly show all of the elements claimed by plaintiff in its '226 Patent. As stated above, the seating structure itself was not new and would have been obvious to anyone skilled in the art of transit seating or seating in general. The seat support claimed in the '226 Patent is extremely basic and was identical to that in the American Round Base Pedestal seat offered for sale in 1969. The pedestal, as mentioned above, is the only part of the claimed patent that in any way adds or is claimed to have added any new element to the seating structure. Even a cursory glance at the Heywood Wakefield inverted T Plane Mate Pedestal, used in 1969, indicates an almost identical structure as that claimed by plaintiff in its patent. Plaintiff asserts that the Heywood Wakefield inverted pedestal provides for a channel at the bottom of the foot as opposed to a hollow tubular foot. The Court finds this distinction to be without merit, as the same function and use results from the Heywood Wakefield inverted T Plane Mate Pedestal as does that in the plaintiff's invention in the '226 Patent.

[6] Plaintiff contends that the pedestal of the patent in suit is distinguishable from the round base pedestal of the Tour Coach seat, as well as all other round base pedestals, and is unique in its function and advantages from round base pedestals. The Court cannot agree with this conclusion. This Court finds that the round based foot and the foot of the '226 Patent in suit are the functional equivalents of one another, and that the '226 foot does not function in any new or different mode, nor does it provide any new or different result.

As stated by the Sixth Circuit, in the case of *Philips Industries, Inc. v. State Stove and Manufacturing Company*, 522 F.2d 1137, 1141 (6th Cir. 1975):

"Given that the individual claim elements are old and disclosed in the prior art, if this device is to be patentable then there must be that 'impalpable something', *Harvey v. Levine*, 322 F.2d 481, 485 (6th Cir. 1963), in the combination itself that would render the invention unobvious. The Supreme court decisions require that patents for the combination of old elements receive special scrutiny 'with a care proportioned to the difficulty and improbability of finding invention in an assembly of old elements.' *Great Atlantic & Pacific Tea Co. v. Supermarket Equip. Corp.*, 340 U.S. 147, 152, 71 S.Ct. 127, 130, 95 L.Ed. 162 (1950). The concept of 'synergistic result,' which is 'when the whole in some way exceeds the sum of its parts,' has evolved to determine what constitutes the 'key requirement,' of patentability. *Anderson's-Black Rock v. Pavement Salvage Co., Inc.*, 396 U.S. 57, 60-61, 90 S.Ct. 305, 24 L.Ed.2d 258 (1969); *Great Atlantic & Pacific Tea Co., supra*, 340 U.S. at 152, 71 S.Ct. at 130.

"There is nothing in the record which indicates . . . any new or unex-

pected cooperative result. . . . However, both of these benefits function independently. Each element operates as well separately as it does in combination, and as in *Anderson's-Black Rock, supra*, 396 U.S. at 60, 90 S.Ct. at 307, the combination 'though perhaps a matter of great convenience, did not produce a "new or different function," *Lincoln Engineering Co. v. Stewart-Warner Corp.*, 303 U.S. 545, 549, 58 S.Ct. 662, 664, 82 L.Ed. 1008 within the test of validity of combination patents.'"

[7] Upon consideration of the prior art cited to the Patent Office and the prior art cited to this Court in the instant case, it is the determination of this Court that there is nothing in the record which indicates any new or unexpected cooperative result in the patent in issue, and that therefore there is no synergistic result produced by the '226 Patent.

The Supreme Court has recently spoken in this area in the case of *Sakraida v. Ag Pro Inc.*, 425 U.S. 273, 96 S.Ct. 1532, 47 L.Ed.2d 784 (1976). In that decision, the Supreme Court stated:

"We cannot agree that the combination of these old elements to produce an abrupt release of water directly on the barn floor from storage tanks or pools can properly be characterized as synergistic, that is, 'result[ing] in an effect greater than the sum of the several effects taken separately.' *Anderson's-Black Rock v. Pavement Co.*, 396 U.S. 57, 61, 90 S.Ct. 305, 308, 24 L.Ed.2d 258, 261 (1969). Rather, this patent simply arranges old elements with each performing the same function it had been known to perform, although perhaps producing a more striking result than in previous combinations. Such combinations are not patentable under standards appropriate for a combination patent. *A & P Tea Co. v. Supermarket, etc. Co., supra; Anderson's-Black Rock v. Pavement Co., supra.*" *Sakraida, supra*, 425 U.S. at 282, 96 S.Ct. at 1537.

[8] So, too, the '226 Patent simply rearranges old elements with each performing the same function it had been known to perform. Such a combination is not patentable.

[9] It is further the opinion of this Court that the prior art cited and applied by the examiner during the course of the prosecution of the patent in suit was not the best prior art available. Said prior art did not include any showing of the overall combination claimed, a center pedestal for a two passenger transportation seats or concealed fasteners for such pedestals. It is thus the determination of this Court that since the examiner was not aware of the best prior art, the presumption of validity is weakened, as opposed to strengthened. See *Holstensson v. V-M Corporation*, 325 F.2d 109 (6th Cir. 1963); *Westinghouse Electric Corporation v. Titanium Metals Corporation of America*, 454 F.2d 515 (9th Cir. 1971), cert. den., 407 U.S. 911, 92 S.Ct. 2439, 32 L.Ed.2d 685 (1972).

[10] Plaintiff attempts to argue that the pedestal and foot in the patent in suit provide improved energy absorption characteristics and are more crash-worthy than any such pedestals or feet in the prior art. A great deal of testimony and evidence was received in regards to the safety factors asserted by plaintiff to be inherent in the '226 Patent. However, it is the determination of this Court that consideration of the safety factors is inappropriate as a justification for patentability of the '226 Patent.

The asserted inherent safety features of the seat design of the '226 Patent relate to the upright column and foot design and would necessarily relate to the tensile strength, gauge, size, shape, and type of material used in said upright column and foot. The patent in issue is silent as to any such references. In the Sixth Circuit case of *Cole v. Sears, Roebuck & Co.*, 520 F.2d 673 (6th Cir. 1975), the court therein, in dealing with an argument that the plaintiff's patent therein, Claims 7, 8, and 9, represented a novel and patentable system of placing certain slots for air induction, stated:

"If on the other hand, as plaintiff-appellant Cole contends, the air induction system through the 'slots' about the drip pan, depends for its effectiveness on the number, size and location of said slots, such features must be disclosed both as limitations upon the patent and as a means of teaching its art. 35 U.S.C. § 112 (1970). Finding no such specifics in the broadly stated elements, we hold, as we did in *Kaiser Industries Corp. v. McLouth Steel Corp.*, 400 F.2d 36 (6th Cir. 1968), cert. denied, 393 U.S. 1119, 89 S.Ct. 992, 22 L.Ed.2d 124 (1969), and *Philips Industries, Inc. v. State Stove and Mfg. Inc.*, 522 F.2d 1137, at 1140-1141 (6th Cir. 1975) that the patent is invalid for lack of particularity in the claims as required by 35 U.S.C. § 112 (1970):

"'The patent law does not require a prospective inventor to search so far in attempting to determine the scope of a patent and the areas left open for inventive inquiry. Section 112 provides that it is the claims that shall *particularly point out* and *distinctly* [emphasis in original] claim the subject matter of the patentee's invention. Certainly, terms used in the claims can gain meaning from the specifications or from the knowledge attributable to one skilled in the art. But a prospective inventor is required to go no further in attempting to determine the invention claimed and the areas foreclosed to future enterprise . . .

"'In our view of this case, the Appellants ask this Court to ignore the precision of definition required of them by the statute. As the Supreme Court noted in *Union Carbon v. Binney & Smith Co.*, 317 U.S. 228, 63 S.Ct. 165, 87 L.Ed. 232 (1942), to allow claims "so indefinite as not to give the notice required by the statute would be in direct contravention of the public interest which Congress . . . recognized and sought to protect." In that case the Court considered a product patent where the distinction from the prior art was a matter of degree. The Court rejected terms, such as, "substantially pure," "commercially uniform," and "comparatively small," that gave no standard for comparison or were so indefinite as to have no established meaning to one skilled in the art. *Kaiser Industries Corp. v. McLouth Steel Corp., supra* [400 F.2d] at 50-51.'" *Cole, supra*, at 675.

[11] It is the determination of this Court that, as in *Cole, supra*, if plaintiff is to assert safety considerations as a basis for patentability, there must be sufficient description in the patent to substantiate said claims and to delineate for future inventors that area which is claimed to be within the patent. The Court has reviewed the patent in issue and has found that it is totally silent as to any considerations of safety or advantages in regards thereto.

Title 35 U.S.C. § 112 states:

"The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

"The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention."

[12] Since the '226 Patent is silent in regards to any feature of energy absorption or safety features, such considerations cannot be considered by this Court. If plaintiff bases patentability of its patent on these features, the patent is invalid as failing to particularly point out and distinctly claim that which it alleges is the subject matter of its patent pursuant to Title 35 U.S.C. § 112.

INFRINGEMENT

[13] The Court next turns to the issue of infringement. It is the opinion of this Court that said issue is moot as the Court

has above found plaintiff's patent to be invalid. However, in the interest of judicial economy, the Court shall consider the evidence presented and make factual determinations on the issue of infringement.

[14, 15] The Court first notes that in responding to the charges of invalidity, plaintiff has asserted and attempted to adopt a very narrow construction of its claims of its patent, thereby attempting to distinguish relevant prior art from said claims. However, this Court notes that in urging infringement, plaintiff has adopted a pattern of attempting to read its claims more broadly to include the devices manufactured by defendant National. Plaintiff cannot urge a narrow construction concerning the validity and a broad interpretation in asserting infringement. Consistent readings of the patent in issue must be utilized by the Court in determining both validity and infringement. See *Dunlop Company, Ltd. v. Kelsey-Hayes Company*, 484 F.2d 407 (6th Cir. 1973).

Interpreting the claims of plaintiff's patent broadly, this Court comes to the conclusion noted above that the '226 Patent is invalid as it has been anticipated by prior art, as it is obvious or would have been obvious to those skilled in the art at the time the invention was made, and, if based in part or in whole upon the inherent safety factors, that it fails to state with particularity the invention claimed by the patentee.

Assuming *arguendo* that this Court were to construe the claims of the '226 Patent more narrowly, and assuming that such a reading would render said claim valid, such a reading would result in a finding of infringement by defendant National's 1059, 1060, and "Old 1070" seats.

In this regard, the Court first notes that all of National Seating's seats which have an aisle support or use the support pedestal in the aisle position do not infringe plaintiff's '226 Patent. Plaintiff's patent is addressed to a seat support at an intermediate or center position between the wall and the aisle side. Thus excluded from the claims of the patent are those seat supports which are placed at an aisle position. Plaintiff has attempted through various testimony and arguments to convince this Court that all of defendant's seats have their pedestals in an intermediate position. The Court finds plaintiff's arguments to be totally without merit.

Defendant argues that it does not infringe the '226 Patent, as said patent is addressed to transit chairs. Defendant asserts that recliner chairs do not fit into the description of transit chairs and that therefore one of the elements of the claims has not been infringed. However, this Court finds defendant's argument to be without merit.

[16, 17] The patent law provides that a patentee can be his own lexiocographer. See *Ellipse Corp. v. Ford Motor Co.*, 452 F.2d 163 (7th Cir. 1971). Thus, a patentee can utilize his own terms and define them for use in his patent as long as he remains consistent in his position. *Universal Oil Products Co. v. Globe Oil and Refining Co.*, 137 F.2d 3 (7th Cir. 1943), aff'd, 322 U.S. 471, 64 S.Ct. 1110, 88 L.Ed. 1399 (1944). Although it is unclear as to the exact definition of the term "transit" as used by plaintiff in its patent, this Court finds that the general and normal definition of said term would apply to both the inter-city and intra-city bus seating field and that therefore both stationary back and recliner back seats would be included in said term.

The Court notes that Plaintiff's Exhibit 132, which is a catalogue of American Seating's products, includes references to the following categories: driver seats, transit seats, school bus seats, non-recliner seats, and recliner seats. However, upon further review of this catalogue, it appears that American Seating uses the term transit seat in not only the transit category, but also in its non-recliner and recliner sections. Therefore, it appears to this Court that it is the consistent position of plaintiff American that the term transit seat includes both recliner and non-recliner seating arrangements.

Defendant also argues that its Old and New 1070 Models do not infringe plaintiff's

patent as the upright pedestals of said models are not connected to the frame that runs from the aisle to the wall transverse of the bus. Defendant asserts that in its seat the upright column is connected to two members of the frame which run longitudinally, not transversally, of the bus and that thereafter there are three beams that run transversally of the bus to support the seat.

It is the opinion of this Court that said argument is without merit as the actual support mechanism, whether it be attached directly to the beam or whether it be attached to two small metal pieces which are thereafter attached to a beam, is in essence the functional equivalents of one another and that therefore such a distinction is without merit.

Defendant further argues that its New Model 1070 does not infringe plaintiff's patent, asserting said seat pedestal has a different foot design than that disclosed in the '226 Patent. National's New Model 1070 foot design indicates a foot which is square cut on its ends and has an attachment flange welded thereto and extending outwardly from such square cut end. Such flanges are totally exposed from the tube and provide holes to receive the floor fasteners. Further, such exposed attachment flanges are each selectively covered by a four-wall closure cap. Defendant asserts that such a design permits better access to the fastening bolt and provides other advantages, to wit: a shorter overall foot, thereby improving ingress and egress, reduction in cost because of less material being utilized and easier installation of the pliable cap as well as the elimination of sharp corners.

Defendant asserts that the independent Claims 1 and 6 of plaintiff's patent include limitations describing the access apertures to the fastening bolts as being in or defined by the tube of the foot. Such limitations are not present in the New 1070 Model seat. Defendant further asserts that plaintiff, in its original application to the Patent Examiner, defined the foot as "being cut away at its upper end portions provide vertical access to said vehicle floor . . ." See Plaintiff's Exhibit 119. Said description was rejected by the Examiner who relied upon the combination of several patents including the Koch Patent 2,947,554 for its showing of a tube cut away at its end. The Patent Examiner held that it would have been obvious to make the ends of the pedestal feet as taught by Koch in his patent.

Plaintiff, upon submitting what was finally accepted to be the design for the foot in the '226 Patent, attempted to distinguish the Koch Patent on the basis that the fastener hole 29 and the attachment tab 27 of the Koch Patent were not within the tube as defined in the amended '226 claim, and that the ends of tube 23 in the Koch Patent did not define "an access aperture adjacent the associated bolt hole" as required by the Barecki claims.

The Court determines that plaintiff's arguments to the Patent Examiner in the prosecution of its patent foreclose the argument presently made to this Court urging infringement of defendant National's design. The Court determines that plaintiff is excluded by file wrapper estoppel from attempting to argue in the instant case that defendant's foot, almost identical to that described in the Koch Patent, infringes the '226 Patent. The Court therefore determines that National's "New Model 1070" seat does not infringe the claims of plaintiff's '226 Patent.

Further, upon review, it is the determination of this Court that all the elements of plaintiff's '226 Patent are included in the 1059, 1060 and the "Old 1070" seats manufactured by National.

[18] Thus, were plaintiff's '226 Patent valid, there would in fact be infringement by defendant National's seat Models 1059, 1060 and "Old 1070", but only for those seats of said models in which the pedestals were placed at a center or intermediate position. The Court specifically finds that those seats of Model 1059, 1060, and the "Old 1070", where the pedestals were placed in an aisle position, would not and do not infringe plaintiff's '226 Patent.

CONCLUSIONS

Therefore, this Court having found plaintiff's patent invalid under Title 35 U.S.C. § 102 as having been anticipated by the prior art; as being obvious to one skilled in the art at the time the invention was made under Title 35 U.S.C. § 103; and further having found that if plaintiff bases its contention of validity in part or in whole upon safety factors, the patent does not particularly point out and describe the invention claimed by the patentee as required by 35 U.S.C. § 112, this Court hereby finds for the defendant and against the plaintiff. This Court specifically finds United States Letters Patent No. 3,729,226 to be invalid and unenforceable.

Plaintiff to pay costs.

IT IS SO ORDERED.

Bernardino TORRES and Irma Torres, Plaintiffs,

v.

TOWMOTOR DIVISION OF CATERPILLAR, INC. and Foley Towlift Inc., Defendants.

No. 77 C 1810.

United States District Court, E. D. New York.

Nov. 18, 1977.

In product liability action, plaintiffs sought order of attachment of the defendant's insurance policy for the sole purpose of obtaining quasi in rem jurisdiction, relying on decision of the New York Court of Appeals, in *Seider v. Roth*. The District Court, Bramwell, J., held that: (1) in light of subsequent decision of the United States Supreme Court in *Shaffer v. Heitner*, in order for a state to presently assert quasi in rem jurisdiction, it must first be proved that the nonresident defendant has contacts, ties, or relations with the forum state so that the maintenance of the suit does not offend traditional notions of fair play and substantial justice; (2) the *Seider* decision cannot be regarded as creating direct action against the insurer, and (3) accordingly, where the only nexus the instant action had with New York was that nonresident defendant allegedly injured a person in New Jersey who happened to be a New York resident, but who was employed in New Jersey, quasi in rem jurisdiction could not be established by attachment of defendant's insurance policy solely on the basis that its insurer did business in New York.

Motion denied.

1. Courts ⇐96(3)
Federal Courts ⇐372

Where jurisdiction is based on diversity of citizenship, federal court will normally follow decisions of the highest court of the state in which it sits; however, where a state court decision on the issue of jurisdiction is challenged as constitutionally infirm, the federal court must be guided by the relevant decisions of the United States Supreme Court.

2. Courts ⇐12(2)

In order for a state to assert quasi in rem jurisdiction, it must first be proved that the nonresident defendant has contacts, ties, or relations with the forum state so that the maintenance of the suit does not offend "traditional notions of fair play and substantial justice." U.S.C.A.Const. Amend. 14.

3. Courts ⇐12(2)

Decision of the New York Court of Appeals in *Seider v. Roth* does not purport to create a direct assertion of jurisdiction over the insurer; rather, the "direct action" emanating from that decision is an effect of the decision only after quasi in rem jurisdiction has been validly acquired, and thus for a *Seider* attachment to continue to exist, it must do so as a species of quasi in rem

Cite as 586 F.2d 611 (1978)

AMERICAN SEATING COMPANY, Plaintiff-Appellant Cross-Appellee,

v.

NATIONAL SEATING COMPANY, Defendant-Appellee Cross-Appellant.

Nos. 76-2625, 76-2626.

United States Court of Appeals, Sixth Circuit.

Argued June 19, 1978.

Decided Sept. 15, 1978.

Suit was brought for infringement of patent No. 3,729,226, relating to a passenger bus seat that uses a tubular inverted "T" pedestal. The United States District Court for the Northern District of Ohio, Eastern Division, Leroy J. Contie, Jr., J., 457 F.Supp. 444, held that the patent was invalid. The court further held that if the patent were valid, it was infringed by some of defendant's seat models, and an appeal and cross appeal were taken. The Court of Appeals, Weick, Circuit Judge, held that: (1) presumption of the patent's validity was completely destroyed by reason of the fact that the concepts embodied in the uncited prior art possessed the most relevance in the determination of patentability, and (2) the patent was invalid because it was anticipated by the prior art, because it was obvious to one of ordinary skill in the art, and because it failed to describe particularly that which was claimed to be invented.

Affirmed.

1. Patents ⇐18, 37, 46

Patentability is dependent upon three essential elements, namely, novelty, utility, and nonobviousness. 35 U.S.C.A. §§ 101–103.

2. Patents ⇐18, 37, 46

Elements of novelty, utility, and nonobviousness constitute separate tests of patentability, each of which must be met in order for a patent to be valid. 35 U.S.C.A. §§ 101–103.

3. Patents ⇐112.1

Starting point in analyzing a challenge to a patent's validity is the statutory presumption that the patent is valid. 35 U.S.C.A. § 282.

4. Patents ⇐112.1

Presumption of patent validity is based upon the acknowledged experience and expertise of the patent office and upon the fact that the issuance of a patent constitutes a type of administrative determination supported by evidence. 35 U.S.C.A. § 282.

5. Patents ⇐112.1

In cases in which relevant prior art was not considered by the patent office, the presumption of patent validity is largely, if not wholly, vitiated. 35 U.S.C.A. § 282.

6. Patents ⇐112.1

Degree by which the presumption of patent validity is weakened in cases in which relevant prior art was not considered by the patent office depends upon a balancing of the pertinence of the newly cited prior art and the pertinence of the prior art actually considered by the patent examiner in the prosecution of the patent application. 35 U.S.C.A. § 282.

7. Patents ⇐112.1

Presumption of patent's validity was completely destroyed by reason of the fact that the concepts embodied in the uncited prior art possessed the most relevance in the determination of patentability. 35 U.S.C.A. § 282.

8. Patents ⇐37

Novelty does not exist if a patented device is anticipated by a substantially identical device whose elements perform substantially the same work in substantially the same manner. 35 U.S.C.A. §§ 102, 103.

9. Patents ⇐72(1)

A patent is anticipated if all the elements of the patented device, or their equivalents, are found in a single preexisting structure or description. 35 U.S.C.A. §§ 102, 103.

10. Patents ⇐324.55(4)

A finding of equivalence is a determination of fact which cannot be disturbed unless clearly erroneous. 35 U.S.C.A. §§ 102, 103.

11. Patents ⇐328(2)

Patent No. 3,729,226, relating to a passenger bus seat that uses a tubular inverted "T" pedestal, was invalid for anticipation, where the only significant difference between the seat disclosed by the patent and the prior art round base seats related to the shape of the pedestal feet, and where there was no difference in either the function performed by the tubular inverted "T" pedestal and the round-based pedestal, or in the manner in which the two types of pedestals perform their function. 35 U.S.C.A. §§ 102, 103.

12. Patents ⇐18

Patent relating to a passenger bus seat that uses a tubular inverted "T" pedestal was invalid for obviousness to one of ordinary skill in the art. 35 U.S.C.A. § 103.

13. Patents ⇐36(3)

Substantial evidence supported district court's finding that patent, relating to a passenger bus seat that uses a tubular inverted "T" pedestal, was a combination patent, but the combination of old elements failed to produce a synergistic effect or result, and the invention was thus unpatentable.

14. Patents ⇐26(1¼)

A combination of old elements, in order to be patentable, must produce a synergistic effect or result.

15. Patents ⇐26(1¼)

Combination of old elements in patent, relating to a passenger bus seat, to produce a seat which is superior to aisle leg seats because of its increased storage and leg room under the seat, its increased ease in maintenance and cleaning, its improved aesthetic qualities, and its increased ease in passenger egress and ingress could not properly be characterized as synergistic; nor was a synergistic effect provided by the alleged improved crashworthiness of the seat disclosed by the patent.

16. Patents ⇐36.1(1), 36.2(1)

Certain secondary considerations, such as commercial success, long-felt but unresolved needs, and the failure of others, may have some relevance in the determination of obviousness. 35 U.S.C.A. § 103.

17. Patents ⇐36.2(2)

Although in a close case secondary factors may tip the scales toward patent validity, they cannot save a patent from invalidity when there is a plain lack of invention, and obviousness is clear. 35 U.S.C.A. § 103.

Lloyd A. Heneveld, Price, Heneveld, Huizenga, Cooper, Daniel Van Dyke, Grand Rapids, Mich., for plaintiff-appellant cross-appellee.

Charles B. Lyon, Donnelly, Maky, Renner & Otto, Cleveland, Ohio, for defendant-appellee cross-appellant.

Before WEICK and MERRITT, Circuit Judges, and CECIL, Senior Circuit Judge.

WEICK, Circuit Judge.

This action was brought in the District Court by American Seating Company (American) against National Seating Company (National) for the infringement of its U.S. Letters Patent No. 3,729,226 ('226), entitled "Single Pedestal Transit Chair." National, in its answer, pleaded the invalidity of the patent and denied infringement, and counterclaimed for a declaratory judgment of invalidity and non-infringement.

In a well-written opinion District Judge Contie held that the patent was invalid under: (1) 35 U.S.C. § 102, because it was anticipated by the prior art; (2) 35 U.S.C. § 103, because it was obvious to those skilled in the art at the time of its invention; and (3) 35 U.S.C. § 112, because it failed to describe particularly that which was claimed to be invented. Furthermore the District Court found that the patent, if valid, was infringed by some of National's seat models, but was not infringed by other National seat models.

Both parties appealed. American has appealed from those portions of the District Court's judgment which held the patent invalid and which found that certain of National's seat models did not infringe upon the patent. National has cross-appealed from the District Court's findings of infringement.

We affirm, holding the patent invalid, and therefore it is not necessary that we reach the issues of infringement.

I

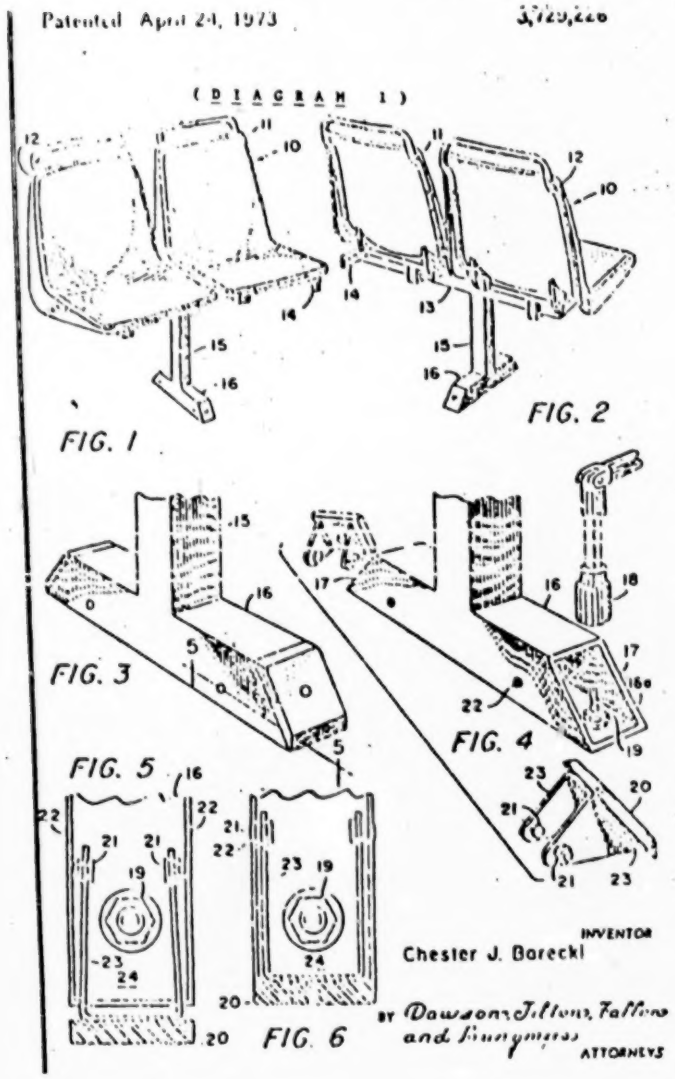
The '226 patent relates to a passenger bus seat. The device was invented around April, 1970, by Charles A. Barecki, an employee of American. The patent application (which application was assigned by Barecki to American) was filed in the U.S. Patent Office on June 4, 1971, and the patent was issued on April 24, 1973. American and National, at the time of suit, were the sole American manufacturers of intercity passenger bus seats.[1]

The '226 patent (see diagram 1) discloses a center pedestal seat. The patent claims[2] show two side-by-side seats (11 and 12) mounted on a beam (13). The beam is attached to the wall of a bus by an angle iron (14). The beam is supported approximately midway between the seats by a pedestal shaped in the form of an inverted "T". The pedestal is composed of a single upright column (15) and a tubular foot (16), which foot extends fore and aft of the bus. The ends (17) of the foot are cut away at a 45° angle to provide access openings to the fastening bolts (19) used to secure the foot to the floor. The access openings can be covered by end caps (20). The end caps are held in place by a U-shaped spring plate (23), which has two shoulder rivets or lugs (21) snapped into receiving holes (22).

[See following illustration.]

1. Apparently there are two markets for passenger bus seats, the inter-city market and the intra-city market. Inter-city passenger bus seats are recliner type seats, while intra-city passenger bus seats are for the most part non-recliner or fixed-back type seats. At the time of suit American was the dominant manufacturer of intra-city passenger bus seats. National, although previously having manufactured intra-city passenger bus seats, no longer did so at the time of trial.

2. The '226 patent contains six claims. Of the claims, claims one and six are independent. The other claims are dependent upon claim one.



Prior to the marketing of passenger bus seating with the tubular inverted "T" pedestal, the standard floor support used for passenger bus seats was aisle legs. American began to market passenger bus seats manufactured in conformity with the '226 patent in 1971. Since that time the tubular inverted "T" pedestal disclosed by the '226 patent has enjoyed considerable acceptance and commercial success as a mode of floor support for both inter-city and intra-city passenger bus seats. App. 1171–72.

In 1972 National first offered for sale a recliner passenger bus seat which used a tubular inverted "T" pedestal identical to the one disclosed by the '226 patent. Since its first use National has modified the pedestal's foot design so that the fastening bolts are located outside of the tube of the foot. At the time of trial all passenger bus seats manufactured by National used a tubular inverted "T" pedestal for the floor support.

The '226 patent sets forth the following advantages of its seat design, which advantages are alleged to be attributable to the tubular inverted "T" pedestal, over the traditional aisle leg passenger bus seat: (1) increased safety and ease in passenger ingress and egress; (2) increased leg room and storage space under the seat; (3) increased ease in maintenance and cleaning; and (4) improved appearance.

II

[1, 2] Patentability is dependent upon three essential elements, namely, novelty, utility, and nonobviousness, articulated and defined in 35 U.S.C. §§ 101-03. These elements constitute separate tests of patentability, each of which must be met in order for a patent to be valid. *United States v. Adams*, 383 U.S. 39, 48, 86 S.Ct. 708, 15 L.Ed.2d 572 (1966); *Reynolds Metals Co. v. Acorn Bldg. Components, Inc.*, 548 F.2d 155, 159 (6th Cir. 1977) and cases cited therein.

The District Court held that the '226 patent was invalid, *inter alia*, because it failed to meet two of the above tests, that is, the structure disclosed by the patent was anticipated, thereby negating novelty, *Allied Wheel Prods., Inc. v. Rude*, 206 F.2d 752, 760 (6th Cir. 1953), and the patent was obvious in light of the prior art.

[3–5] The starting point in analyzing a challenge to a patent's validity is the statutory presumption that the patent is valid under 35 U.S.C. § 282. The presumption of validity is based upon the acknowledged experience and expertise of the Patent Office and upon the fact that the issuance of a patent constitutes a type of administrative determination supported by evidence. *Parker v. Motorola, Inc.*, 524 F.2d 518, 521 (5th Cir. 1975), *cert. denied*, 425 U.S. 975, 96 S.Ct. 2175, 48 L.Ed.2d 799 (1976); *see Deep Welding, Inc. v. Sciaky Bros., Inc.*, 417 F.2d 1227, 1234 (7th Cir. 1969), *cert. denied*, 397 U.S. 1037, 90 S.Ct. 1354, 25 L.Ed.2d 648 (1970); *Monroe Auto Equip. Co. v. Heckethorn Mfg. & Supply Co.*, 332 F.2d 406, 412-13 (6th Cir.), *cert. denied*, 379 U.S. 888, 85 S.Ct. 160, 13 L.Ed.2d 93 (1964). In cases in which relevant prior art was not considered by the Patent Office, the presumption is largely, if not wholly, vitiated. *Tee-Pak, Inc. v. St. Regis Paper Co.*, 491 F.2d 1193, 1196 (6th Cir. 1974); *Westwood Chem., Inc. v. Owens-Corning Fiberglas Corp.*, 445 F.2d 911, 916 (6th Cir. 1971), *cert. denied*, 405 U.S. 917, 92 S.Ct. 941, 30 L.Ed.2d 786 (1972).

[6] The degree by which the presumption is weakened in cases in which relevant prior art was not considered by the Patent Office, depends upon a balancing of the pertinence of the newly cited prior art and the pertinence of the prior art actually considered by the patent examiner in the prosecution of the patent application. *Tee-Pak, Inc. v. St. Regis Paper Co., supra*, 491 F.2d at 1193; *accord, Aluminum Co. of America v. Amerola Prods. Corp.*, 552 F.2d 1020, 1024-25 (3d Cir. 1977).

[7] In the instant case the District Court determined that the prior art con-

sidered by the Patent Office did not include "any showing of the overall combination claimed, a center pedestal for a two passenger transportation seats [sic] or concealed fasteners for such pedestals." App. 60. Because the concepts embodied in the uncited prior art possess the most relevance in the determination of patentability in this case, we agree with the District Court that the presumption of validity has been completely destroyed.[3]

III

[8] Novelty does not exist if a patented device is anticipated by a substantially identical device whose elements perform substantially the same work in substantially the same manner. *Dunlop Co. v. Kelsey-Hayes Co.*, 484 F.2d 407, 414 (6th Cir. 1973), *cert. denied*, 415 U.S. 917, 94 S.Ct. 1414, 39 L.Ed.2d 471 (1974); *Monroe Auto Equip. Co. v. Heckethorn Mfg. & Supply Co., supra*, 332 F.2d at 414.

The District Court found that two prior art seats anticipated the '226 patent. The first of these seats is the Greyhound Tour Coach Seat. (See diagram 2 below.) That seat, designed, manufactured, and sold by National to Greyhound in the 1950's, discloses:

> Said Tour Coach seat includes side-by-side recliner seats 11 and 12 supported on frame beam 13, having aisle side 13–A and wall side 13–B and mounting means 14 provided to secure the wall side of the frame to the vehicle wall. Frame 13 is also supported by a pedestal P, including a column 15 and a foot 16. Such foot 16 includes a circular bottom plate 16–A welded to the bottom of the upright column and four spaced gussets 16–B interconnecting the column 15 and the bottom plate 16–A. The bottom plate 16–A has four equally circumferentially spaced countersunk mounting holes 19–A therein to receive fasteners to secure the same to the vehicle floor. The foot 16 is selectively covered by a two-piece shroud 20, 20–A, joined by screws 21, such shroud acting to conceal the four spaced fasteners. The above described pedestal P can be positioned at the center of the seat frame for some seats or in an intermediate position between the center of the frame and the aisle side for other seats. [App. 47–49]

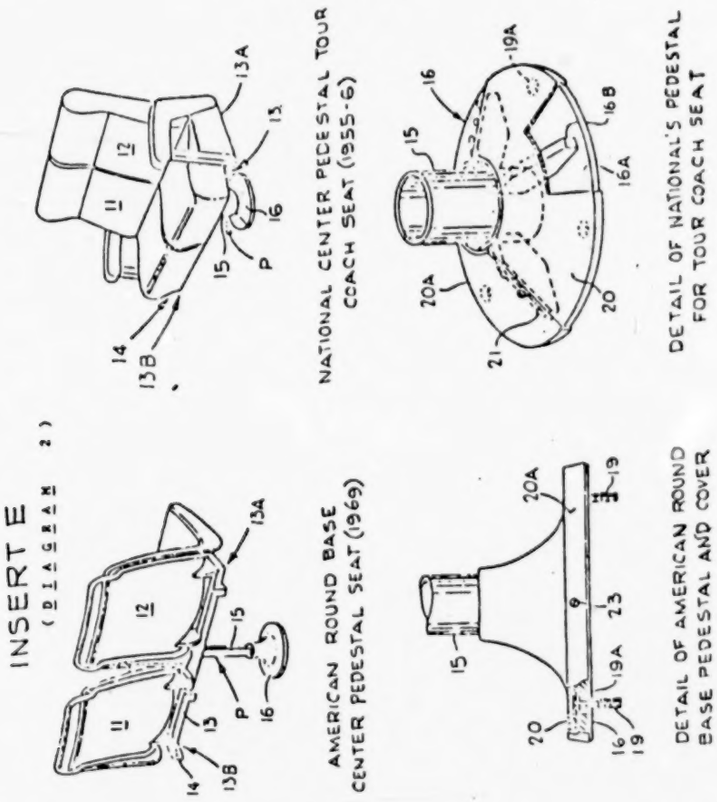
The second seat found by the District Court to anticipate the '226 patent, is the American round base center pedestal seat sold by American to General Motors Corporation in 1969.[4] (See diagram 2.) That seat discloses:

> Such seat includes two side-by-side transit [*i. e.*, fixed-back] seats 11 and 12 mounted on a tubular beam 13, having an aisle-side 13–A and a wall-side 13–B. Such wall-side of the frame is provided with a flange means 14 to secure the frame to the vehicle wall. The center pedestal P is provided to support frame 13 in conjunction with the wall mount, such pedestal including an upright cylindrical tubular column 15 and a cast foot 16 extending fore and aft of such column. Such foot 16 includes a plurality of counter-sunk holes 19–A adapted to receive floor fasteners 19 to secure the pedestal to the floor. The cast foot was selectively covered by a two-piece stainless steel shroud 20, 20–A interconnected by screws 23, such shroud acting to conceal the fasteners. [App. 51]

3. For example, neither of the prior art seats found by the District Court to anticipate patent '226 (one of which was developed by American) was considered by the Patent Office. In addition, the seat which possessed the pedestal most similar to the pedestal disclosed by the '226 patent, namely, the Heywood Wakefield Plane Mate Seat, was not cited by American to the patent examiner.

4. Hereinafter the Greyhound Tour Coach Seat and the American round base center pedestal seat will be referred to collectively as the "round base seats."

(DIAGRAM 2)



After setting forth what it believed to be the appropriate standard by which an anticipation is to be determined, namely, whether all the elements of a patented device *or their equivalents* are found in a single prior art device or description in which they perform substantially the same work in substantially the same way, the District Court found: (1) that there had been a public sale or use of the round base seats more than one year prior to the date of the patent application; (2) that the only significant distinction between the round base seats and the seat disclosed by the '226 patent related to the pedestals; (3) that the round base pedestals were the equivalents of the tubular inverted "T" pedestal; and (4) that, therefore, because all of the elements of

the '226 patent or their equivalents were found in single prior art references, the '226 patent was anticipated.

American contends that the District Court's finding of anticipation may not stand because it is premised upon a misunderstanding of the law of anticipation in that the Court impermissibly interjected into its determination the doctrine of equivalency. Although not clearly articulated, American appears to be arguing that patent law requires that the construction of the challenged device be identical to that of the prior art device or reference which is alleged to anticipate it, in order for there to be an anticipation. In this case, because even a perfunctory comparison of the round base pedestals and the tubular inverted "T" pedestal shows a substantial difference in their structures, American concludes that the '226 patent cannot possibly be anticipated by the round base seats.

[9] American's assertion, to put it simply, is not in accordance with patent law as it relates to anticipation. This Court has repeatedly defined the proper standard with respect to anticipation as requiring that all the elements of a patented device *or their equivalents* be found in a single pre-existing structure or description. *Tee-Pak, Inc. v. St. Regis Paper Co., supra*, 491 F.2d at 1198; *A. J. Indus., Inc. v. Dayton Steel Foundry Co.*, 394 F.2d 357, 359 (6th Cir. 1968), *Monroe Auto Equip. Co., v. Heckethorn Mfg. & Supply Co., supra*, 332 F.2d at 414; *Preformed Line Prods. Co. v. Fanner Mfg. Co.*, 328 F.2d 265, 271 (6th Cir.), *cert. denied*, 379 U.S. 846, 85 S.Ct. 56, 13 L.Ed.2d 51 (1964); *Firestone v. Aluminum Co. of America*, 285 F.2d 928, 930 (6th Cir. 1960); *Allied Wheel Prods., Inc. v. Rude, supra*, 206 F.2d at 760; *accord, Norton Co. v. Carborundum Co.*, 530 F.2d 435, 442 n. 18 (1st Cir. 1976); *Kahn v. Dynamics Corp. of America*, 508 F.2d 939, 943 (2d Cir.), *cert. denied*, 421 U.S. 930, 95 S.Ct. 1657, 44 L.Ed.2d 88 (1975); *Decca Ltd. v. United States*, 420 F.2d 1010, 1027 28, 190 Ct.Cl. 454, *cert. denied*, 400 U.S. 865, 91 S.Ct. 102, 27 L.Ed.2d 104 (1970); *Amphenol Corp. v. General Time Corp.*, 397 F.2d 431, 438 (7th Cir. 1968); *Greening Nursery Co. v. J & R Tool & Mfg. Co.*, 376 F.2d 738, 740 (8th Cir. 1967); *Inglett & Co. v. Everglades Fertilizer Co.*, 255 F.2d 342, 345 (5th Cir. 1958); Deller's Walker on Patents § 57 at 242, § 58 at 249, and § 77 at 374-76 (2d ed. 1964).

American next argues that even if the equivalency of the tubular inverted "T" pedestal and the round base pedestals is an appropriate consideration in determining the issue of anticipation, the District Court erred in finding the pedestals to be equivalents.

In *Olympic Fastening Systems, Inc. v. Textron, Inc.*, 504 F.2d 609, 619 (6th Cir. 1974), *cert. denied*, 420 U.S. 1004, 95 S.Ct. 1447, 43 L.Ed.2d 762 (1975), *quoting from Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608, 70 S.Ct. 854, 94 L.Ed. 1097 (1950), the Court said:

> Under the doctrine of equivalents "if two devices do the same work in substantially the same way, and accomplish substantially the same result, they are the same, *even though they differ in name, form, or shape.*" (Emphasis added).

[10] A finding of equivalence is a determination of fact which cannot be disturbed unless clearly erroneous. *Graver Tank & Mfg. Co. v. Linde Air Prods. Co., supra*, 339 U.S. at 609-10, 70 S.Ct. 854.

The essential purpose of the '226 patent was to provide a passenger bus seat which was superior to aisle leg seats aesthetically, in ease of cleaning and maintenance, in ease and safety of passenger egress and ingress, and in the amount of leg and storage room under the seat. These advantages stem from the use of a center pedestal floor support.

In our opinion it is patently obvious that the round base seats furnish, in the same manner, that is, by the use of a center pedestal floor support, the identical advantages over aisle leg seats.

[11] The only significant difference between the seat disclosed by the '226 patent and the round base seats, relates to the shape of the pedestal feet. There is no difference in either the function performed by the tubular inverted "T" pedestal and the round-based pedestal, or in the manner in which the two types of pedestals perform their function. Thus the District Court's finding that the pedestals are equivalents is not clearly erroneous.

In our opinion the District Court's determination that the '226 patent was invalid because it was anticipated, is correct.

IV

[12] Although our agreement with the District Court's finding of anticipation is sufficient to affirm that Court's holding of invalidity, we note further that even if the '226 patent were not anticipated by prior art, the patent has other fatal deficiencies, namely, its obviousness.

The resolution of the question of obviousness in deciding patent validity requires the determination of several basic factual inquiries set out by the Supreme Court in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 86 S.Ct. 684, 694, 15 L.Ed.2d 545 (1966), as follows:

> Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.

When a District Court makes the inquiries required by *Graham v. John Deere Co., supra*, it makes findings of fact which are binding upon an appellate court, unless the findings are clearly erroneous. *Reynolds Metals Co. v. Acorn Bldg. Components, Inc., supra*, 548 F.2d at 161; *Kolene Corp. v. Motor City Metal Treating, Inc.*, 440 F.2d 77, 81 (6th Cir.), *cert. denied*, 404 U.S. 886, 92 S.Ct. 203, 30 L.Ed.2d 169 (1971).

Once the factual setting has been established, the ultimate determination of obviousness is "'a conclusion of law with which this Court may disagree on the established findings of fact.'" *Philips Indus., Inc. v. State Stove & Mfg. Co.*, 522 F.2d 1137, 1139 (6th Cir. 1975), *quoting from Kolene Corp. v. Motor City Metal Treating, Inc., supra*, 440 F.2d at 81; *accord, Reynolds Metals Co. v. Acorn Bldg. Components, Inc., supra*, 548 F.2d at 161.

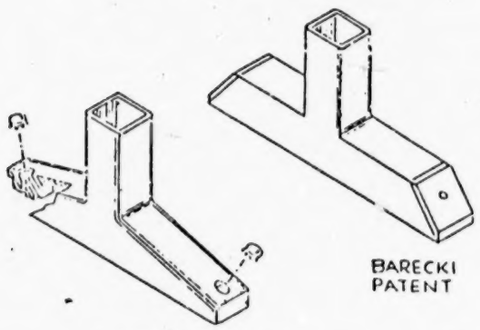
In holding the '226 patent invalid under § 103, the trial court found that none of the elements of the patent was new, and that they appeared in various prior art seats and patents. American contends that the District Court's finding that the '226 patent was a combination patent, is clearly erroneous because the patent contains one element not disclosed by the prior art, namely, the tubular inverted "T" pedestal.

We do not agree. The District Court made the following finding:

> Further, inverted T Pedestals were known in the seating art previous to the date of the invention. See the Blink Patent 198,218 and Howell sequence seating chairs. The Hozeski and Barecki Patent 3,567,281 disclosed an inverted T-type pedestal which illustrates advantages concerning maintenance reduction and concealed fasteners to avoid dirt collection. The Greyhound Tour Coach seat, the BART seats, National's 1040 leg, the plugs used in the Heywood Wakefield Plane Mate seat, and the stainless steel cover used by American on its round base center pedestal seat all illustrate the use of selectively covered floor fasteners. [App. 54]

The District Court further found the following:

> [T]he design of plaintiff's column and foot on the '226 Patent is obvious in light of the Heywood Wakefield inverted T Plane Mate pedestal (see diagram below). The Wakefield pedestal includes a tubular type upright to support chairs or seats and a channel shaped foot extending fore and aft therefrom. Such foot is provided with base plates at each end thereof, such base plates being provided with holes to receive floor fasteners.
>
> [See following illustration.]



[App. 55]

The District Court found, further, as follows:

> Even a cursory glance at the Heywood Wakefield inverted T Plane Mate Pedestal, used in 1969, indicates an almost identical structure as that claimed by plaintiff in its patent. Plaintiff asserts that the Heywood Wakefield inverted pedestal provides for a channel at the bottom of the foot as opposed to a hollow tubular foot. The Court finds this distinction to be without merit as the same function and use results from the Heywood Wakefield inverted T Plane Mate Pedestal as does that in the plaintiff's invention in the '226 Patent.
>
> Plaintiff contends that the pedestal of the patent in suit is distinguishable from the round base pedestal of the Tour Coach seat, as well as all other round base pedestals, and is unique in its function and advantages from round base pedestals. The Court cannot agree with this conclusion. This Court finds that the round based foot and the foot of the '226 Patent in suit are the functional equivalents of one another, and that the '226 foot does not function in any new or different mode, nor does it provide any new or different result. [App. 57-58]

[13] Our independent examination of the evidence relied upon by the District Court persuades us that its finding that the '226 patent is a combination patent is not clearly erroneous, but to the contrary, is supported by substantial evidence.

[14] As recognized by the District Court, because the '226 patent is composed of a combination of old elements, the combination, in order to be patentable, must produce a synergistic effect or result. *See Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 96 S.Ct. 1532, 47 L.Ed.2d 784 (1976); *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 61, 90 S.Ct. 305, 24 L.Ed.2d 258 (1969); *Kearney & Trecker Corp. v. Cincinnati Milacron Inc.*, 562 F.2d 365, 370 (6th Cir. 1977); *Reynolds Metals Co. v. Acorn Bldg. Components, Inc.*, *supra*, 548 F.2d at 161; *Philips Indus., Inc. v. State Stove & Mfg. Co.*, *supra*, 522 F.2d at 1141; *Dickstein v. Seventy Corp.*, 522 F.2d 1294, 1298-99 (6th Cir. 1975), *cert. denied*, 423 U.S. 1055, 96 S.Ct. 787, 46 L.Ed.2d 644 (1976).

In *Kearney & Trecker Corp. v. Cincinnati Milacron Inc.*, *supra*, 562 F.2d at 370, this Court, speaking through Circuit Judge Lively, recently defined synergism as follows:

> The synergistic test is met when a combination of elements produces an effect which is "greater than the sum of the several effects taken separately." *Anderson's-Black Rock*, *supra*, 396 U.S. at 61, 90 S.Ct. at 308. There must be an "impalpable something" in the combination itself which consists of previously known elements to pass the requirement of nonobviousness. *Philips Industries*, *supra*, 522 F.2d at 1141. Stated another way, there must be some "unusual or surprising result" from a combination of old elements. *Dickstein*, *supra*, 522 F.2d at 1299.

[15] We cannot agree with American's assertion that the combination of the old elements in the '226 patent to produce a passenger bus seat which is superior to aisle leg seats because of its increased storage and leg room under the seat, its increased ease in maintenance and cleaning, its improved aesthetic qualities, and its increas.d ease in passenger egress and ingress, can be characterized properly as synergistic. The District Court found that several prior art seats, namely, the Plane Mate Seat and the round base seats, furnished the identical advantages over aisle leg seats. This finding of fact is supported by substantial evidence and is not clearly erroneous.

Further, we cannot accept American's argument that a synergistic effect is provided by the alleged improved crashworthiness of the seat disclosed by the '226 patent, which improved crashworthiness is the result of an alleged increase in the energy absorption characteristics of the tubular inverted "T" pedestal. This function is completely omitted in the patent's specifications. No argument as to improved crashworthiness was raised before the Patent Office. As stated by the Court in *Graham v. John Deere Co.*, *supra*, 383 U.S. at 25, 86 S.Ct. at 697, *quoting from Lincoln Eng'r Co. v. Stewart-Warner Corp.*, 303 U.S. 545, 550, 58 S.Ct. 662, 82 L.Ed. 1008 (1938):

> If this were so vital an element in the functioning of the apparatus, it is strange that all mention of it was omitted.

Moreover, American's evidence of improved crashworthiness of the '226 patent consists only of a comparison of the energy absorption characteristics of the tubular inverted "T" pedestal and aisle legs. American introduced no evidence that the tubular inverted "T" pedestal is more crashworthy than other types of prior art pedestals such as the pedestals of the round base seats. Without such evidence we fail to see how we, or the District Court, could conclude that the combination of the components of the '226 patent produces a new or different function which is absent in the prior art.

In our opinion, American's suggestion that a synergistic result is evidenced by the alleged improvement in crashworthiness is nothing more than an afterthought of an astute patent trial attorney. *Graham v. John Deere Co.*, *supra*, 383 U.S. at 25, 86 S.Ct. 684; *Lincoln Eng'r Co. v. Stewart-Warner Corp.*, *supra*, 303 U.S. at 550, 58 S.Ct. 662.[5]

We agree with the District Court's conclusion that the '226 patent fails to provide the requisite synergistic effect needed by combination patents, for validity. As stated by the Supreme Court in *Sakraida v. AG Pro, Inc.*, *supra*, 425 U.S. at 282, 96 S.Ct. at 1537:

> [T]his patent simply arranges old elements with each performing the same function it had been known to perform, although perhaps producing a more striking result than in previous combinations. Such combinations are not patentable under standards appropriate for a combination patent. *Great A. & P. Tea Co. v. Supermarket Corp.*, *supra* [340 U.S. 147,

5. The District Court also found that the alleged safety feature of the '226 patent "would necessarily relate to the tensile strength, gauge, size, shape, and type of material used in said upright column and foot. The patent in issue is silent as to any such references." [App. 60-61.] Based on this finding, the Court held the patent invalid for failing to point out particularly, and to claim distinctly the subject matter of the invention.

71 S.Ct. 127, 95 L.Ed. 162 (1950)][6]; *Anderson's-Black Rock v. Pavement Co., supra.* Under those authorities this assembly of old elements . . . falls under the head of "the work of the skilful mechanic, not that of the inventor." *Hotchkiss v. Greenwood,* [52 U.S. (11 How.) 248, 267, 13 L.Ed. 683 (1850)].

[16] We recognize that certain secondary considerations, such as commercial success, long felt but unresolved needs, and the failure of others, may have some relevance in the determination of obviousness. *Graham v. John Deere Co., supra,* 383 U.S. at 17–18, 86 S.Ct. 684; *Reynolds Metals Co. v. Acorn Bldg. Components, Inc., supra,* 548 F.2d at 161–62. The District Court, in resolving the obviousness issue, did not consider and make findings with respect to American's contentions relating to (1) the long felt need for and commercial success of the '226 patent, (2) the failure of National to develop a viable center pedestal passenger bus seat, and (3) National's copying of the tubular inverted "T" pedestal disclosed by the '226 patent, within a short period after American placed it on the market. We find no reversible error in the District Court's failure to take into account these secondary factors in reaching its decision on the question of obviousness in this case.

[17] Although in a close case secondary factors may tip the scales toward patent validity, they cannot save a patent from invalidity when, as in the case here, there is such a plain lack of invention, and obviousness is clear. *Graham v. John Deere Co., supra,* 383 U.S. at 35–36, 86 S.Ct. 684; *Kamei-Autokomfort v. Eurasian Automotive Prods.,* 553 F.2d 603, 606 (9th Cir.), *cert. denied,* 434 U.S. 860, 98 S.Ct. 186, 54 L.Ed.2d 133 (1977); *T. P. Labs., Inc. v. Huge,* 371 F.2d 231, 236 (7th Cir. 1966).

The '226 patent is invalid because it was anticipated by the prior art under the provisions of 35 U.S.C. § 102, because it was obvious to one of ordinary skill in the art under the provisions of 35 U.S.C. § 103, and because it failed to describe particularly that which was claimed to be invented under 35 U.S.C. § 112. Because the patent is invalid, it is unnecessary to reach the other issues raised by this appeal, including the issues of infringement.

Costs are to be assessed against American.

Affirmed.

John E. JONES, Plaintiff-Appellee,

v.

CITY OF MEMPHIS, TENNESSEE et al., Defendants-Appellants.

No. 77-1704.

United States Court of Appeals, Sixth Circuit.

Argued June 20, 1978.

Decided Sept. 19, 1978.

Suit was brought against city and certain John Doe police officers who, in the course of their employment, allegedly deprived plaintiff of his constitutional rights by illegally arresting and beating him. The United Stated District Court for the Western District of Tennessee, Bailey Brown, Chief Judge, 444 F.Supp. 27, concluded that the city could be held liable under the doctrine of respondeat superior and denied the city's motion to dismiss. Leave to appeal was granted, and the Court of Appeals, Harry Phillips, Chief Judge, held that the doctrine of respondeat superior was not applicable to actions brought against a municipal corporation directly under the Fourteenth Amendment and the general federal question statute.

Reversed and remanded with directions.

6. The patent in suit is just "as flimsy and as spurious" as that involved in *Great A. & P. Tea Co., supra. Cf., id.* at 158, 71 S.Ct. 127 (Douglas, J., concurring).

United States Patent [19] [11] **3,729,226**

Barecki [45] **Apr. 24, 1973**

[54] **SINGLE PEDESTAL TRANSIT CHAIR**

[75] Inventor: **Chester J. Barecki, Grand Rapids, Mich**

[73] Assignee: **American Seating Company, Grand Rapids, Mich**

[22] Filed: **June 4, 1971**

[21] Appl. No. **149,947**

[52] U.S. Cl. **297/232, 297/445, 248/188.8**

[51] Int. Cl. **A47c 3/00**

[58] Field of Search **297/248, 232, 445, 248/188.1, 188.8, 361, 188.7, 188.9, 188, 108/150, 211/182, 287/189.36 E, 56, 52/127**

[56] **References Cited**

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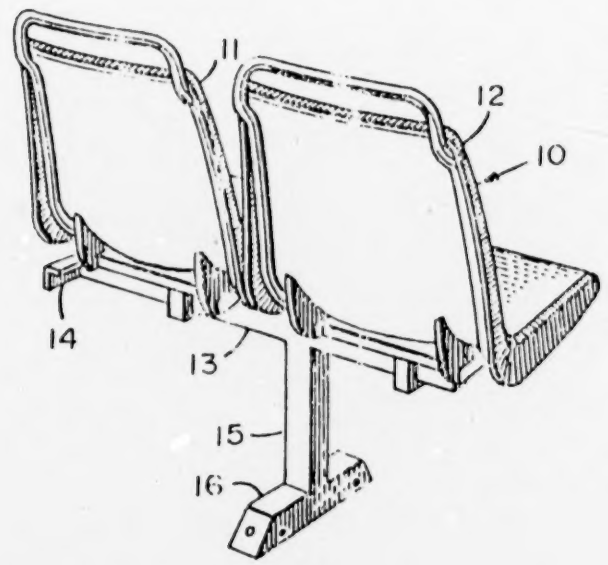
Primary Examiner Francis K. Zugel
Attorney Dawson, Tilton, Fallon & Lungmus

[57] **ABSTRACT**

A transit chair has a beam supporting two seats and has a side rail for attachment to the side of a vehicle, the beam being supported about midway by a single pedestal which is carried on a hollow foot extending longitudinally of the vehicle floor, the foot being provided at its ends with bolt openings for receiving bolts anchoring the foot to the floor and the foot being cut away along an angle above the openings to provide vertical access for a socket wrench, the ends of the foot being releasably closed by a closure cap having releasable wing lugs interlocked with side openings in the foot.

6 Claims, 6 Drawing Figures



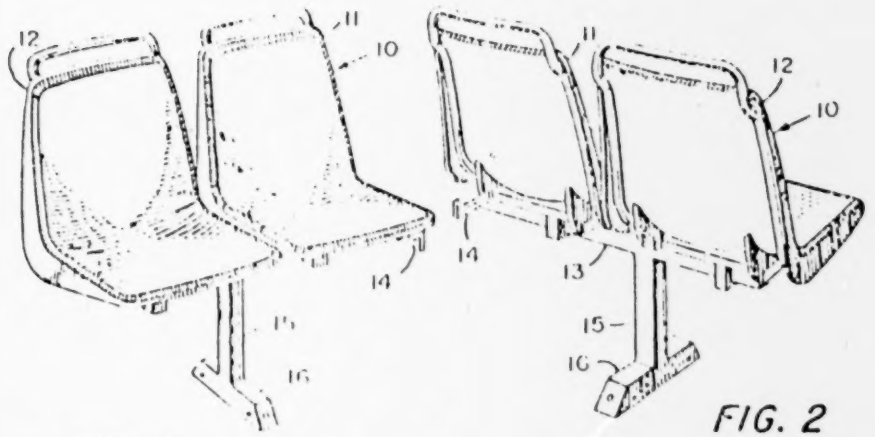


FIG. 1

FIG. 2

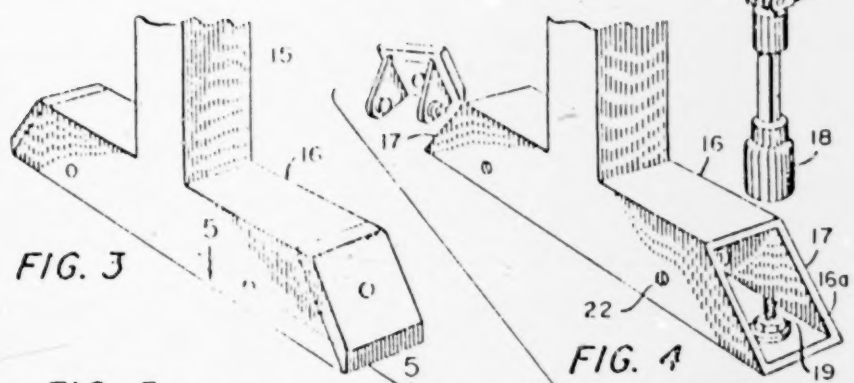


FIG. 3

FIG. 4

F'G. 5

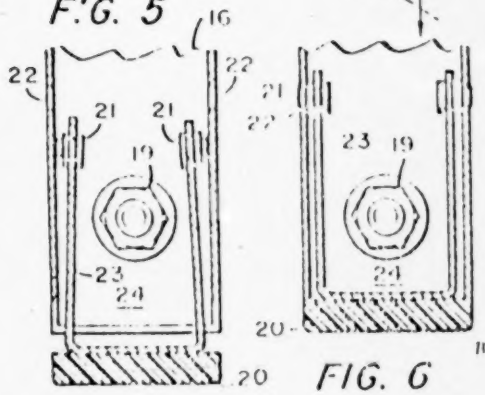


FIG. 6

INVENTOR
Chester J. Barecki

BY Dawson, Sutton, Fallon and Youngman
ATTORNEYS

1

SINGLE PEDESTAL TRANSIT CHAIR

BACKGROUND AND SUMMARY

In buses, planes, and other vehicles there is a need for sturdy support means for chairs, while at the same time providing maximum clearance between the chairs and the vehicle floor which permits quick and easy floor cleaning, leg room, and storage space. I have discovered that the above can be accomplished by supporting a pair of seats upon a cross beam which can be secured on one side to a side wall of the vehicle and supporting the beam about midway with a single pedestal having an elongated hollow foot extending in a direction longitudinally of the vehicle floor, while also providing a foot structure which can be firmly locked to the floor through exposed ends of the hollow foot while providing closures which can be removed from time to time when the fastening means must be retightened. An elongated hollow foot has its bottom ends provided with openings for receiving bolts, the ends of the foot being cut away at an angle to provide vertical access for a socket wrench, releasable closure caps being provided for the ends of the foot.

DRAWING

In the accompanying drawing,

FIG. 1 is a perspective view of the front side of a transit chair providing two passenger seats,

FIG. 2, a rear perspective view of the chair shown in FIG. 1,

FIG. 3, a broken perspective view on an enlarged scale of the foot of the pedestal,

FIG. 4, an exploded perspective view of the foot structure shown in FIG. 3 but with the end caps removed to expose the attachment means and to provide vertical clearance for a socket wrench,

FIG. 5, a broken sectional view, the section being taken as indicated at line 5—5 of FIG. 3, the end cap being partially pressed into the hollow foot, and

FIG. 6, a view similar to FIG. 5 but showing the end closure cap locked in place.

DETAILED DESCRIPTION

In general, I have provided a two seat chair structure carried by a beam, the beam being supported about midway by a single pedestal having at its bottom an elongated hollow foot, the foot extending longitudinally or lengthwise of the vehicle so as to prevent any swaying of the chair during the starting and stopping of the coach. The elongated foot has its end portions cut away to provide vertical access to bolts passing through the bottom ends so that the foot can be firmly anchored to the vehicle floor and later retightened should the bolts work loose. Closure cap means are provided for closing the end openings with wing lugs which snap into holes in the sides of the foot so that the caps can be removed for such tightening operations at later times.

Referring to the drawing, the transit chair 10 comprises two separate seat structures 11 and 12 mounted on a beam 13. The beam may be attached to the wall of the coach or vehicle by use of a short length of angle iron 14. The beam is supported by a single column pedestal 15 located about midway between the seats to afford maximum leg room without depriving the chair of the needed support.

2

The pedestal 15 is attached to the floor by the use of the elongated tube or foot 16 which extends in a direction longitudinally of the coach floor and includes a flat bottom plate 16a resting on the vehicle floor and secured to it. In the illustration given, the foot is substantially square in cross section and has its ends 17 cut away at an angle preferably about 45° to permit the use of a socket wrench 18 to tighten the attachment nuts or bolts 19 which are received in bolt holes at each end of the bottom plate 16a. Hence, the fastening bolts are located in fore and aft positions relative to the single vertical column 15, and they extend at least partially within the hollow foot member 16.

End caps 20 are locked in place automatically by having two shoulder rivets or lugs 21 snap into receiving holes 22 as the two spring fingers or wings 23 of the end cap are pressed inside the foot tube and along its bottom edge 24. When locked in place, the shoulder rivets or lugs hold the end cap 20 firmly against the opening 17 at each end of the foot 16. To remove the cap, the rivet lugs 21 should be pressed inwardly to clear the openings 22 and the closure then withdrawn. This structure prevents unauthorized removal. If desired, a special tool may be employed for simultaneously pushing the shoulder rivets inwardly on each side of the holes and thus facilitating the removal of the caps.

While in the foregoing specification I have shown structure in considerable detail for the purpose of illustrating phases of the invention, it will be understood that such details may be varied widely by those skilled in the art without departing from the spirit of my invention.

I claim

1. A multiple-passenger transit vehicle chair comprising a chair frame with an aisle side and a wall side, said frame supporting a plurality of passenger chairs side-by-side, mounting means on said wall side of said frame for securing said frame to a vehicle wall, a single pedestal cooperating with said wall to support said frame, said pedestal being spaced at an intermediate location between said wall side and said aisle side of said frame and including an upright column rigidly connected at its top to said frame, a hollow tubular foot member integral with the bottom of said column and extending forwardly and rearwardly therefrom, said foot having a generally flat bottom plate resting on the floor of said vehicle and provided with a bolt hole adjacent each end thereof to receive floor fastening bolts securing said foot to the vehicle floor at forward and rearward positions relative to said column, said tubular foot member further defining forward and rear access apertures adjacent their associated bolt holes to permit access to said fastening bolts when they are received in said bolt holes, said first and second closure means removably attached to said foot to cover said access apertures of said foot member respectively and cooperating with said hollow foot member to enclose said fastening bolts when said closures are assembled to said foot while permitting unrestricted tool access to said fastening bolts when said closures are removed.

2. The structure of claim 1 wherein said column of said pedestal is located at the approximate longitudinal and transverse center of the seat portion of said frame and wherein said mounting means comprises flange

means attached to said frame for securing the same to the vehicle wall.

3. The structure of claim 1 wherein said tubular foot member has a rectilinear cross section with open forward and rear ends providing said access apertures, said access apertures extending at an inclination relative to the horizontal from the bottom plate of said foot member upwardly and toward said column member, thereby permitting vertical as well as side tool access.

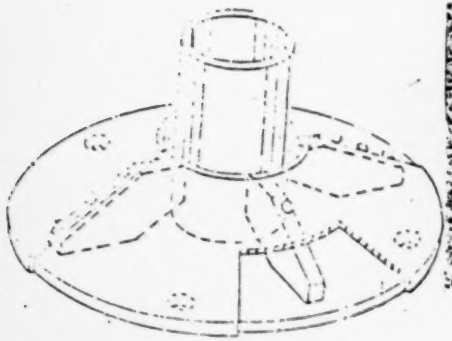
4. The structure of claim 1 wherein said frame comprises a cross beam extending longitudinally of said chair, and wherein said mounting means comprises a rail carried by said cross beam, said structure further comprising a pair of seats mounted upon said cross beam in side by side relation.

5. The structure of claim 3 wherein said closure means comprise first and second end plates covering respectively said front and rear inclined access apertures of said hollow rectilinear foot member.

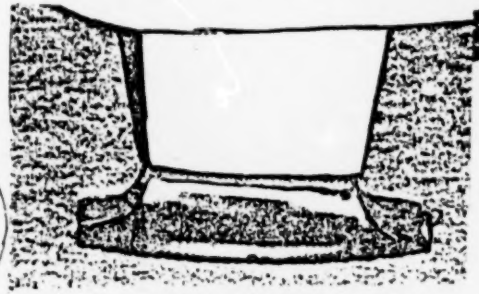
6. A two-passenger transit vehicle chair comprising a chair frame with an aisle side and a wall side, first and second chairs carried by said frame in side by side relation, mounting means securing the wall side of said frame to an upright vehicle wall, a single pedestal supporting said frame and including an upright column member connected to said frame at its approximate longitudinal midpoint and an integral hollow tubular foot member extending fore and aft of said chair from the bottom of said column member, said wall mounting means and said pedestal being the only support for said frame and said chair, said foot having a generally rectilinear cross section and having forward and rear open ends defining forward and rear access apertures, each of said open ends being inclined from the bottom of said foot upwardly and toward said column, first and second fastening bolts attaching said foot member to said floor of said vehicle at locations adjacent respectively said forward and rear access apertures, said bolts extending at least partially within said hollow foot member, and first and second cover members releasably attached to said hollow foot member to cover respectively said forward and rear access apertures, said access apertures extending from the side of an associated fastening bolt over and above the same to permit unrestricted tool access to a fastening bolt when the associated cover is removed.

* * * * *

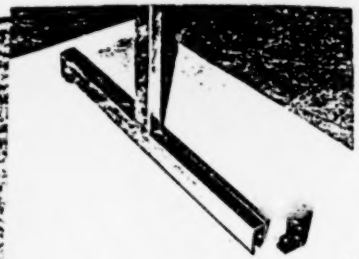
STRUCTURE RELIED UPON BY COURT AND OF WHICH EDWARDS HAD KNOWLEDGE DURING HIS EXTENSIVE ATTEMPT TO DEVELOP A CENTER PEDESTAL SEAT FROM 1970-1972



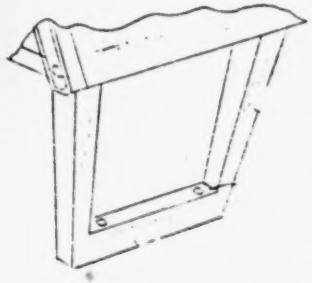
National's Pedestal
For Tour Coach Seat 1965



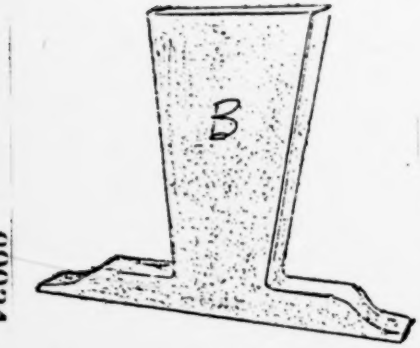
BART Seat
Pedestal 1965



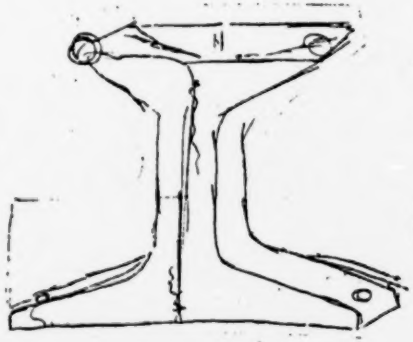
Mitchell Table
Pedestal - Known By
Edwards 1967-1975



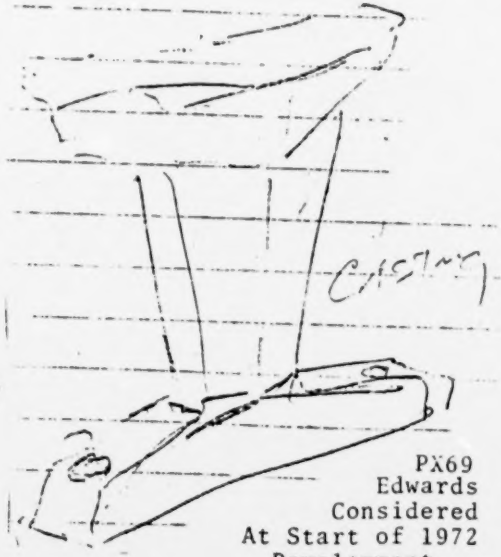
DX-VQ - Proposed
Tubular Foot For
National's 1010 Seat
(1958 - 1959)



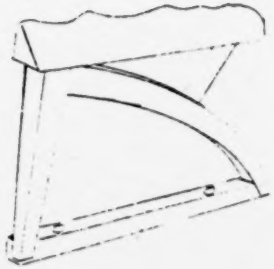
PX65 - Designed For
National 1958 and Considered
By Edwards 1970-1972



PX66AA Inverted T
Pedestal Considered
By Edwards 1970

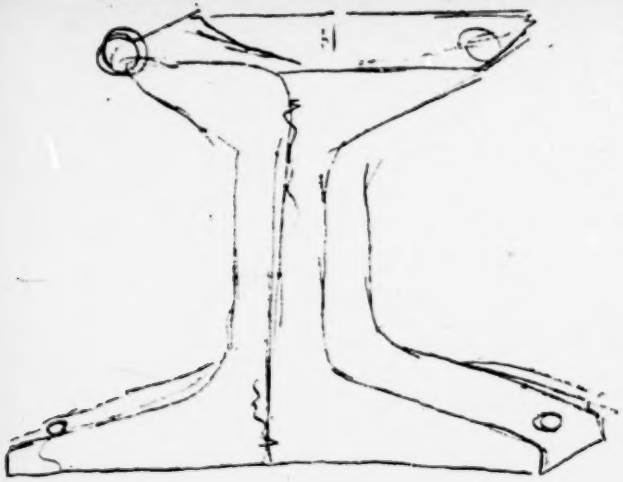


PX69
Edwards
Considered
At Start of 1972
Development

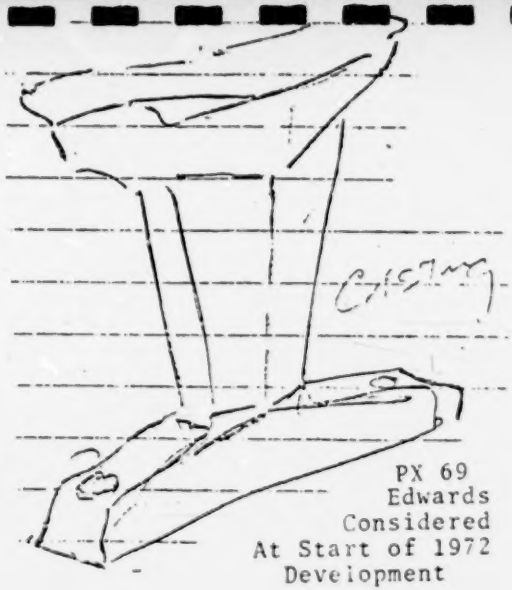


DX-FJ - Proposed
Tubular Foot On
National's 1025-
1031 Seat (1963)

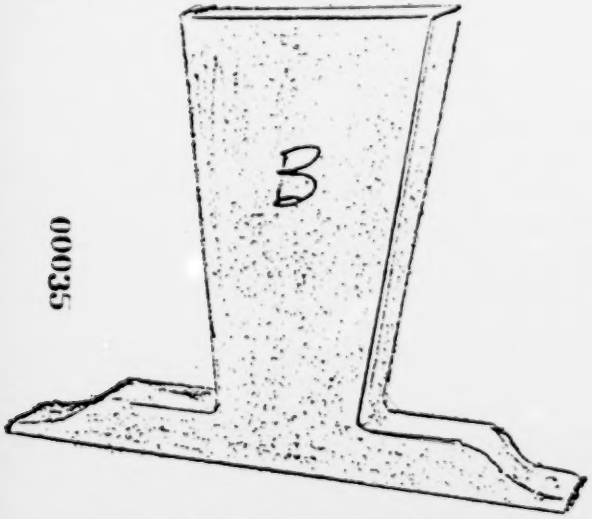
00034



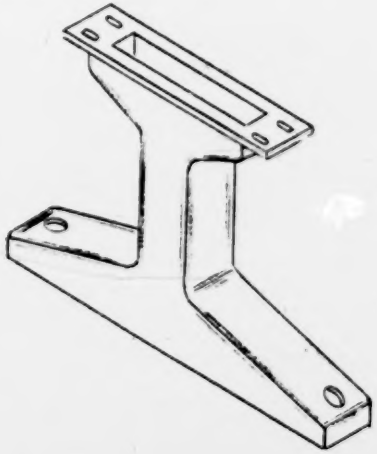
PX66 AA INVERTED T PEDESTAL
CONSIDERED BY EDWARDS 1970



PX 69
Edwards
Considered
At Start of 1972
Development



PX65 DESIGNED FOR NATIONAL 1958
AND CONSIDERED BY EDWARDS 1970-1972



HEYWOOD WAKEFIELD IN-
VERTED T PLANE MATE PEDESTAL (1969)

00035

A Right.

Q And that is what you were doing during 1970 to 1972; is that correct?

A Off and on, yes.

Q And finally you found one, didn't you?

A Oh, we finally settled on one, yes.

Q What was that?

A That was the tubular columns copied from the Mitchell table.

Q Like that shown in this courtroom which has been identified as Defendant's Exhibit SY?

A That was the final version of it, yes.

Q What are the dates of CF-1 to -25?

A They run from June, 1970, and I am not quite sure when the other ones are. They all run approximately within a month of one another.

Q And you say that you completed your present design sometime in September, 1972?

A Right.

Q And that is two years ago and three months; isn't it?

A I suppose so.

Q All this time you have been looking for a design that you can make at a price that you can sell?

A No. This project was brought up and started by

nylon with the tubular "T" pedestal. This was run in passenger transport on March 12, April 23, June 11, August 6 of 1971.

The next ad is "American Seating Presents: 'Two for the Road,* " as a deluxe single back and seat, two passenger bus seats, again showing the tubular "T" pedestal. This was run in passenger transport October 1 and October 29 of 1971.

The next one is an ad, "When it comes to design innovation, we'll try anything once." It shows the 6463 and a picture of Chet Barecki. This was run in passenger transport June 16 and October 6, 1972. This unit has a pedestal which was specially designed and made for CKA.

Q Do you recall to whom the first tubular "T" pedestals were sold?

A Yes, Peoria, Illinois.

Q Would you refer to Plaintiff's Exhibit 161 and determine if this refreshes your memory as to the dates that was sold?

A The order was entered on February 11, 1971, and this is a copy of the billing, including all the other sheets that go along with the billing.

Q What date did you say?

A February 11, 1971 is the date the order was entered. It was for 33 seats of 6455.

Q This is the first date that you sold a city service seat, is that correct, with the tubular "T" pedestal?

A Yes, the "T" pedestal, correct. The second sheet spells

Court Reporters, Inc.
Stenotype Reporters
Akron - Canton, Ohio

New National 1070...the spacemaker

greater comfort for passengers more profit for operators

In bus seating, just a little more space per passenger can make the difference between riding cramped or riding comfortable.

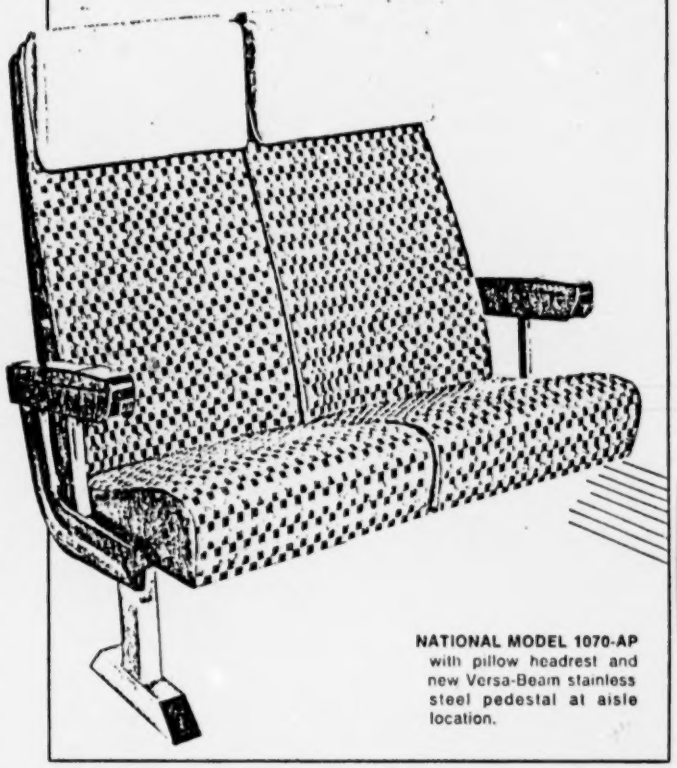
No one knows this more than bus operators. Yet space is always at a premium and must be used for maximum passenger capacity. That's why, when we designed the new National 1070, we carefully engineered in all the passenger space we could create. And we succeeded . . . with extra leg room, extra hip room and extra shoulder room. Here's the rundown on the new space-making features:

More shoulder room – full width seat backs. Now larger passengers sit more relaxed with extra shoulder support backed by the cushioned comfort of Pirelli webbing and resilient urethane foam. A slightly raised headrest also better accommodates your taller passengers.

More hip room – A narrower, slightly bowed arm rest support on the aisle side makes the difference – adds extra space where it is often most needed.

More knee, leg and foot room were created by designing in a wide recess in the seat back, raising the seat back a trifle, repositioning the optional footrest so it is completely out of the way in its retracted position. Equally important, National's new **Versa Beam**™ seat support doesn't interfere with free foot movement and allows passengers to get in and out without having to avoid conventional style seat legs.

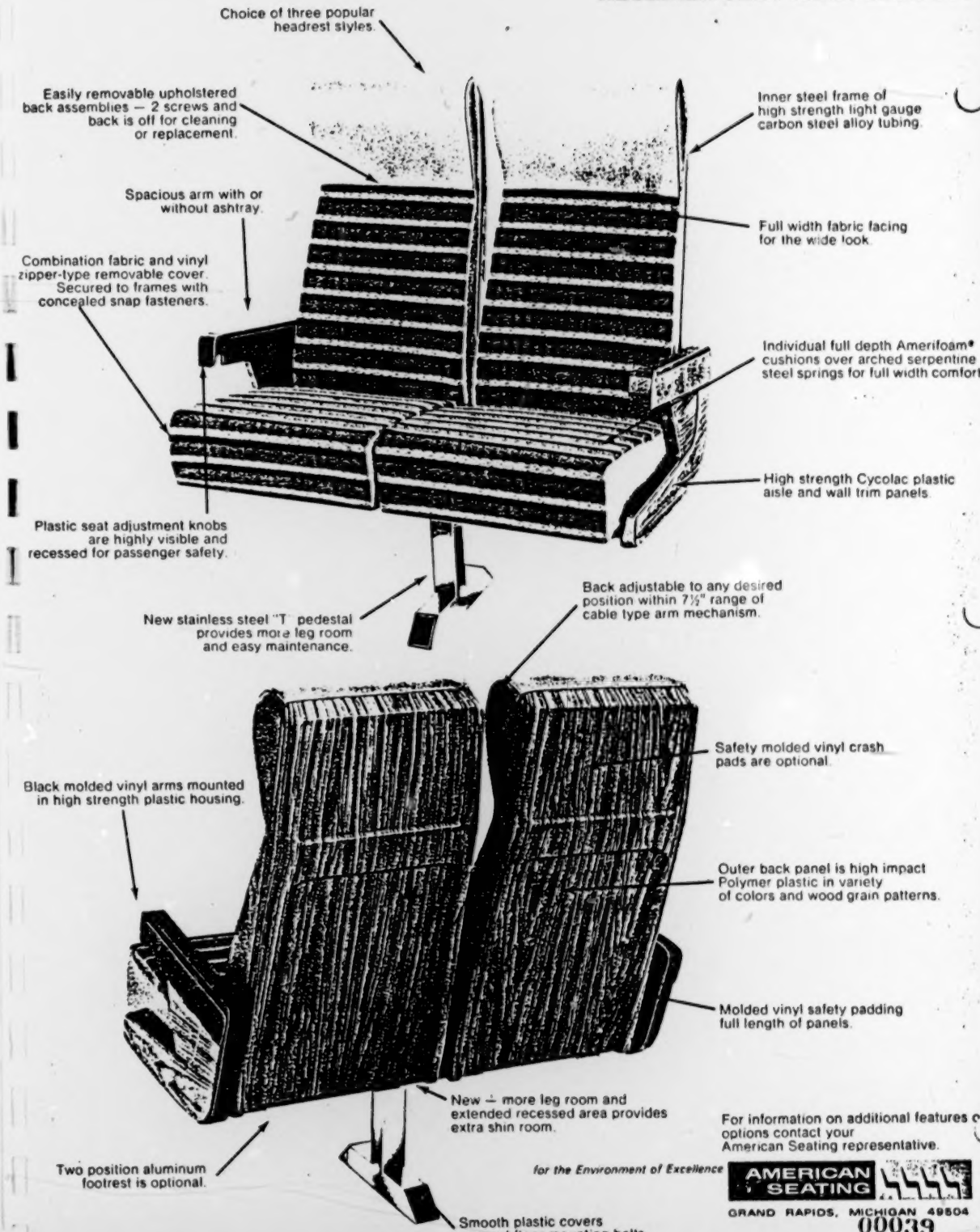
And, National's new 1070 series seats are **on the beam** in many other ways, too . . . with benefits most important to your operation – structural strength, quality construction, durability of materials, minimum maintenance and easy housekeeping . . . plus options to give you exactly what you want for your type of service.



NATIONAL MODEL 1070-AP with pillow headrest and new Versa-Beam stainless steel pedestal at aisle location.

NATIONAL MODEL 1070-CP with pillow headrest and new Versa-Beam stainless steel pedestal in center position. 00038

RECLINER SEAT Model 6630/31T



For information on additional features or options contact your American Seating representative.

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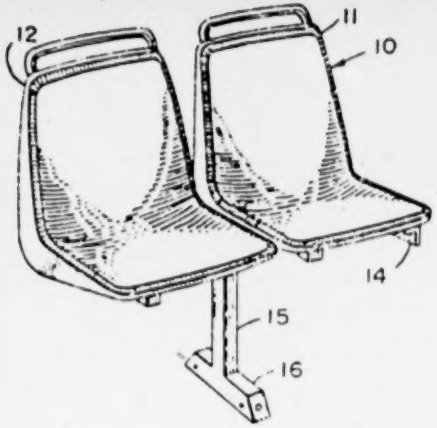
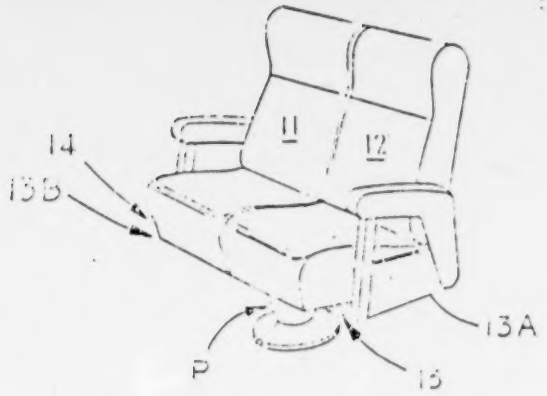
GRAND RAPIDS, MICHIGAN 49504

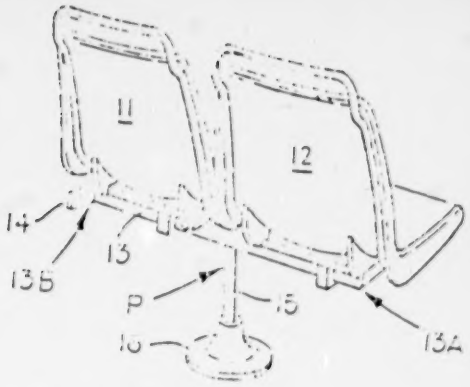
00039



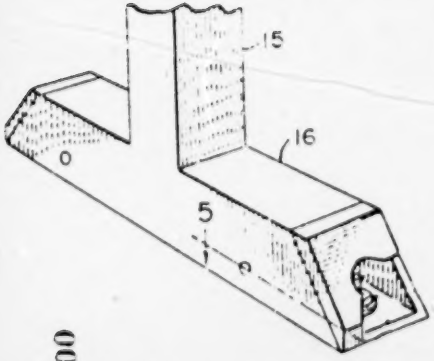
PATENTED SEAT



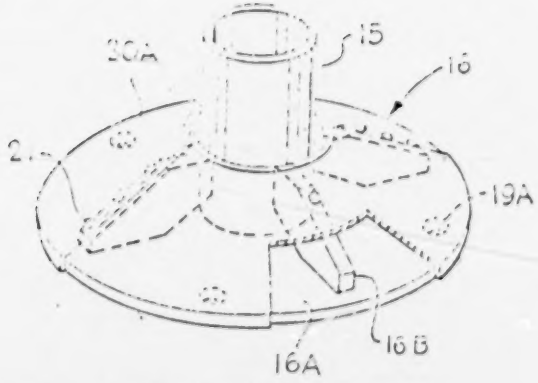
NATIONAL CENTER PEDESTAL TOUR COACH SEAT (1955-6)



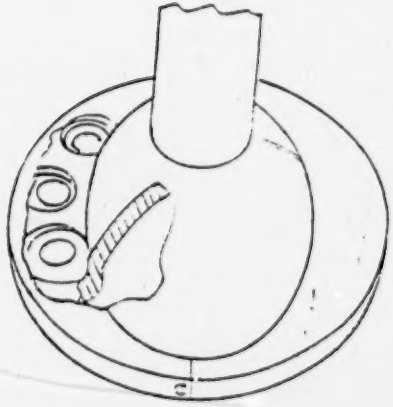
AMERICAN ROUND BASE CENTER PEDESTAL SEAT



DETAIL OF PEDESTAL FOR PATENTED SEAT



DETAIL OF NATIONAL'S PEDESTAL FOR TOUR COACH SEAT



DETAIL OF AMERICAN ROUND BASE PEDESTAL AND COVER

000040

The facts are not complicated. A policeman observed appellant walk up to a locked Toyota, remove a plywood panel from the vent window, and enter the automobile. Three policemen subsequently found appellant in the car and pulled him out. They found a pair of sunglasses, belonging to the owner of the car, in Jimenez's hip pocket. At trial, appellant tried to establish, through his own testimony, that he had not intended to burglarize the car but had merely been seeking refuge from some men who had beaten him up in a fight earlier that evening. On cross-examination the prosecutor asked appellant if he had ever been "convicted of stealing," but never introduced any evidence of prior convictions.

On appeal appellant argues first that the trial judge should have made a preliminary determination that the probative value of this evidence outweighed its prejudicial effect. Second, he claims that the prosecutor, by referring to prior convictions without proving that they were felonies, offered misleading and incomplete evidence. Finally, appellant insists that this Court may consider both of these alleged errors even though his trial counsel made no objection.[2]

Since appellant's case was tried before a Judge, we do not have to determine whether this evidence was admissible. As we stated in *United States v. Impson*, 5 Cir., 1977, 562 F.2d 970,

> [a] judge, sitting as a trier of fact, is presumed to have rested his verdict only on the admissible evidence before him and to have disregarded that which is inadmissible. *United States v. Masri*, 547 F.2d 932, 936 (5 Cir. 1977); *United States v. Dillon*, 436 F.2d 1093, 1095 (5 Cir. 1971). Any error is thus harmless if there exists other admissible evidence sufficient to support the conviction.

Having examined the record, we are convinced that there is sufficient clearly admissible evidence to support appellant's conviction. He committed the acts proscribed by C.Z.C. §§ 502 503. The trial judge, whose job it is to pass on the credibility of witnesses, *United States v. Impson, supra* at 971, apparently did not believe that defendant lacked *mens rea*. The conviction is therefore affirmed.

AFFIRMED.

2. Appellant argues that these errors were so prejudicial that they constituted "plain error."

Anne D. NICKOLA, Plaintiff-Appellant,

v.

Kenneth PETERSON, d/b/a Kaydee Products Company, Defendant-Appellee.

No. 76-1916.

United States Court of Appeals, Sixth Circuit.

Argued Nov. 30, 1977.

Decided June 23, 1978.

Rehearing and Rehearing En Banc Denied Oct. 27, 1978.

Action was brought for patent infringement and for wrongful use of trade secrets. The United States District Court for the Eastern District of Michigan, Southern Division, James Harvey, J., 410 F.Supp. 590, after jury verdict for plaintiff on patent count, granted defendant's motion for judgment notwithstanding the verdict, declared patent claims invalid and entered judgment for defendant, and plaintiff appealed. The Court of Appeals, Markey, Chief Judge, sitting by designation, held that: (1) claims 4 and 21 of Reissue patent No. 27,400 relating to invention which was intended to furnish gas and electric service to individual mobile homes and which consisted of combination of upright post with electric power box, electric meter and gas meter mounted on post, were not invalid for lack of novelty, but (2) claims would have been obvious at time of invention to person having ordinary skill in the art and were therefore invalid for obviousness.

Affirmed.

1. Patents ⇐112.1

Statutory presumption of validity of patent is merely rule of evidence that requires defendant to prove, by clear and convincing evidence, invalidity of patent in an infringement action. 35 U.S.C.A. § 282.

2. Patents ⇐37

Statutory section which is general statement of what may be patented does not specify conditions for patentability and "requirements" broadly referred to in such section, including requirement for "novelty," are set forth elsewhere, and thus, with term carefully spelled out in next section, no warrant exists for looking to broad, undefined word "new" in general section for understanding or application of novelty requirement. 35 U.S.C.A. §§ 101, 102.

3. Patents ⇐45

No-evidence-of-novelty finding could not stand in absence of record evidence that identical invention, i. e., precise combination of structural elements recited in each claim, was known or used by others in country before invention thereof by plaintiff or that identical invention recited in each claim was in public use or on sale in country more than one year prior to date of her application. 35 U.S.C.A. § 102(a, b).

4. Patents ⇐328(4)

Claims No. 4 and 21 of Reissue patent No. 27,400 describing a combination of a pole, electric meter, electric power box, and a gas meter, providing complete utility service for individual mobile homes and trailers, were not invalid for lack of novelty. 35 U.S.C.A. § 102.

5. Patents ⇐18

Exercise of judicial process in determining whether an invention has met nonobviousness requirement turns on application of entire statutory provision to all relevant evidence of record. 35 U.S.C.A. § 103.

6. Patents ⇐18, 41

Lack of cooperation, like result achieved or function performed, is not material on issue of novelty of invention, though it may be material on issue of nonobviousness, and thus to conclude that a combination lacks novelty because its elements don't cooperate is to find novelty lacking without regard to the prior art, and is improper under applicable statute. 35 U.S.C.A. §§ 102, 103.

7. Patents ⇐18

Issue of obviousness-nonobviousness of invention is ultimately determined as conclusion of law, involving as it does consideration of the subject matter of invention as a whole and consideration of a legal ghost called a "person having ordinary skill in the art" while novelty and utility, on the other hand, are determinable as issues of fact. 35 U.S.C.A. §§ 102, 103.

8. Patents ⇐18

Obviousness of patent intended to furnish gas and electric service to individual mobile homes was a question of law. 35 U.S.C.A. § 103.

9. Patents ⇐328(4)

Inventions recited in claims 4 and 21 of Reissue patent No. 27,400 relating to combination of upright post, electric power box, electric meter and gas meter mounted on post, intended to furnish gas and electric service to individual mobile homes, would have been obvious at time inventions were made to person having ordinary skill in the art and were therefore invalid for obviousness. 35 U.S.C.A. § 103.

Charles W. Chandler, Gifford, Chandler, Sheridan & Sprinkle, Birmingham, Mich., for plaintiff-appellant.

John K. McCulloch, Saginaw, Mich., for defendant-appellee.

Before CELEBREZZE, Circuit Judge, LIVELY, Circuit Judge, and MARKEY, Chief Judge of the U. S. Court of Customs and Patent Appeals.*

MARKEY, Chief Judge, Court of Customs and Patent Appeals.

Appeal under 28 U.S.C. § 1291 by plaintiff-patentee, Anne D. Nickola (Nickola), from the district court's patent invalidity decision after a six-day jury trial.[1] The complaint against defendant, Kenneth Peterson d/b/a Kaydee Products Company (Peterson), contains count I, alleging infringement of claims 4 and 21 in Nickola's patent,[2] and count II, alleging wrongful use of trade secrets. In a special verdict of fifteen interrogatories, the jury found for Nickola on the patent count and determined her damages as $6,230.00. On the trade secret count, the jury returned a general verdict for Peterson. The district court then granted Peterson's motion for judgment notwithstanding the verdict on the patent count, denied his alternative motion for a new trial, set aside part of the special verdict, declared the two patent claims invalid, and entered judgment for Peterson on both counts. Nickola appeals only the patent invalidity decision. We affirm.

The Invention

The invention, intended to furnish gas and electric service to individual mobile homes, is the combination of an upright post, with an electric power box, an electric meter, and a heating fuel meter (e. g., a gas meter) mounted on the post.

Fig. 2 in Nickola's patent is reproduced here:

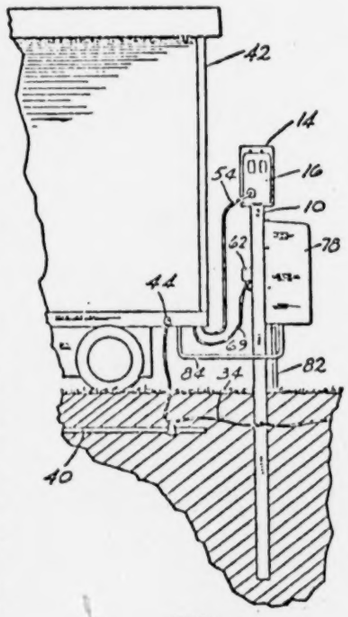


FIG. 2

Referring to Fig. 2, the patent describes a mobile home 42, an elongated post 10, "conventional" electric meter 14, "conventional" electric power box 16, electric cable 54 connecting the power box to the mobile home, ground wire 34 connecting "conventional" mobile home ground wire connection 44 to "conventional" underground metal water pipe 40, "conventional" gas meter 78, "conventional" gas pipes 82 and 84, "conventional" telephone box 62, and "conventional" telephone cable 69.

* Honorable Howard T. Markey sitting by designation.

1. 410 F.Supp. 590, 193 USPQ 443 (E.D.Mich. 1976).

2. Reissue Patent No. 27,400, for "Mounting Pedestal For Utilities," granted June 20, 1972 reissuing Patent No. 3,502,785, granted March 24, 1970 on an application filed November 20, 1967.

Claim 4 recites a combination of four structural elements:

"4. [1] An elongated post mounted in an upright position,
[2] an electrical meter and
[3] an electrical power box mounted on the upper end of said post on opposite sides thereof, [and]
[4] a heating fuel metering means mounted to said electrical meter and said electrical power box."
[Bracketed matter and paragraphing added.]

Claim 21 recites a combination of six structural elements:

"21. [1] An elongated post mounted in an upright position,
[2] an electrical meter and
[3] an electrical power box mounted to said post,
[4] electrical wires extending upwardly along said post and electrically connected to said meter,
[5] an electrical wire connected to and extending from said power box, and
[6] a heating fuel metering means mounted to said post."
[Bracketed matter and paragraphing added.]

Nickola's company, Adnic Products Co., sells a metal post 8 ft. in length, with an L-shaped mounting plate on one end, bearing the trademark POWER PACK PEDESTAL. The post and an electric power box are sold as a unit.

The buyer (e. g., a mobile home park operator) installs the unit in an upright position by burying approximately half of the post in the ground at a mobile home site. The local utility company provides underground gas and electric service to the post, and also provides and mounts the gas and electric meters on the post.

The Trial Testimony

Trial was in November, 1975. Nickola, who demanded a jury trial,[3] testified, so far as material here:

That she was manager of a mobile home park; that in about 1960 electric meters for mobile homes were mounted on a "gang rack" at the rear of the park; that in 1960 mobile homes used "bottled gas"; that in about 1965, when gas service became available, the gas meters were also mounted on a gang rack at the rear of the park, with individual underground supply lines running from each gas meter to a mobile home site; that the next event was introduction of an "electrical pedestal" mounting an electric meter at each mobile home, replacing the central gang rack of electric meters; that she then "introduced the first safe pedestal that combined gas and electric."

Nickola told of a mobile home fire in about 1965, when firemen fought against "live gas and a live electric" because they had disconnected the "wrong gas" and "wrong electric" at the gang racks, and that, in conceiving her invention in May, 1966, she "put something together and worked it out where utilities could be on the same device."

Nickola said her first pedestals for gas and electric meters were approved for her park by the local utility (Consumers) and placed in service on December 18, 1967. She consulted a patent attorney, had prepared a "Record of Invention" form dated April 26, 1967, and had filed her original patent application in the Patent Office (now the Patent and Trademark Office) on November 20, 1967 (exhibit 4). She said that, with commercial sales beginning in 1968, "40 to 50,000" units had been sold.

On cross-examination, she answered that the gas meter, the electric meter, and the other devices which can be mounted on the post, each "work independently of the other."

Kenneth DeVerna, long time employee of Consumers and member of its product evaluation committee, testified that, to his knowledge, Nickola's pedestal was the first approved by his company for combined gas and electric service. John D. Gribble, an-

3. Under Fed.R.Civ.P. 38.

other Consumers employee, gave essentially the same testimony.[4]

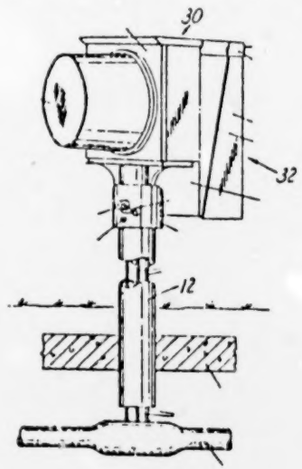
When Nickola rested, Peterson moved orally for a directed verdict on the ground that Nickola had not proved infringement. That motion being denied, Peterson testified primarily with respect to infringement and trade secrets. Peterson then presented Francis B. Boyle as "an expert in the art relating to utility pedestals."

In summary, Boyle testified that from 1962 until his retirement in 1972 he had been designing, manufacturing, and installing utility pedestals; that one of his mobile home pedestals was an elongated post mounting an electric meter and an electric power box, as shown in a photograph dated September, 1963; that in 1963 or 1964 "customers" requested him to "put a hole in there [in the post] for the mounting bracket to support a gas meter," that he designed a second utility pedestal like his first, as shown in a photograph dated June, 1966; that Consumers approved his second pedestal for mobile homes on July 8, 1966; that on the same day he visited Nickola and offered to supply his pedestals; that "in the summer of 1966," in his opinion, it would have been "obvious * * * to mount a gas meter and an electric meter and power box on the same pedestal,"[5] though he "didn't like the idea of mounting a gas meter on the same post as an electrical meter" because if "the [gas] pipe broke and there were a spark, it would ignite;" and that his second pedestal is described in U. S. Patent No. 3,450,951 (exhibit 13), for "Outdoor Electrical Meter Box and Service Outlet For Mobile Homes," granted June 17, 1969 on an application filed July 12, 1967.[6]

In rebuttal, Nickola gave her opinion that it would not have been obvious in May, 1966 (her conception date) "to combine both a gas meter and an electric meter on the same post" because gas "was just newly introduced," "there was a lot of opposition," and "people dislike the gas and electric on the same thing because of fires and dangers of that sort." She further stated that Boyle's visit to her occurred in September, 1968 (not on July 8, 1966).

Motions After The Close of Evidence

[1] Peterson again moved orally for a directed verdict on the ground that Nickola had not proved infringement. That motion was denied. Nickola then moved orally for a directed verdict of patent validity, on the ground that Peterson had not overcome the



4. Nickola presented additional exhibits and seven more witnesses. Discussion of that evidence, directed primarily to infringement, damages, and trade secrets, is unnecessary.

5. Nickola's counsel objected to the question which prompted this testimony on the ground that it called for "the ultimate legal conclusion for the Court to make." The district court correctly overruled the objection, citing Fed.R.Evid. 704:

> "Rule 704. Opinion on Ultimate Issue
>
> "Testimony in the form of an opinion or inference otherwise admissible is not objectionable because it embraces an ultimate issue to be decided by the trier of fact."

6. Boyle's patent, cited without objection as prior art by the patent examiner in Nickola's reissue application, depicts in Fig. 1 an electric meter 30 and electric power box 32 mounted on vertical post 12 (other reference numbers deleted).

statutory presumption of validity,[7] and arguing that there had been "no evidence to go to the jury to challenge the validity of the patent under Sec. 102[8] of the Patent Act, the novelty requirement," nor "any competent testimony to go to the jury to challenge the validity of the patent under Sec. 103."[9] In opposition, Peterson argued that the patent was invalid because "the combination of the elements such as electric power boxes and meters and gas meters is really an aggravation [sic, aggregation] of elements * * *, they have no other function among themselves or one upon the other" and because "the mounting of a gas meter on a pedestal which already supports an electric meter and a power box is obvious and was obvious at the time plaintiff made her invention, whenever she made her invention."

The district court denied Nickola's motion for a directed verdict, stating "there are issues of fact to go to the jury as to the validity of the patent."

Aware that the trial judge intended to treat validity as a question of law, after submitting interrogatories to the jury, Nickola moved orally to submit the "issue of validity itself" to the jury because it "can be tried by the jury" under Fed.R.Civ.P. 38. In denying this motion, the district court observed that "it was held," in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966), "the question of patent validity is one of law."

7. 35 U.S.C. § 282 (1970) provides in part:

> "§ 282. Presumption of validity; defenses.
>
> "A patent shall be presumed valid. Each claim of a patent (whether in independent or dependent form) shall be presumed valid independently of the validity of other claims; dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting it."

The district court correctly stated, in its jury instructions, that the presumption is "merely a rule of evidence that requires the defendant to prove by clear and convincing evidence" the invalidity of the patent. Like other legal presumptions, that provided for in 35 U.S.C. § 282 merely assigns the burden of proof, as the last (and for that purpose redundant) sentence of the provision makes clear.

8. 35 U.S.C. § 102 (1970) provides:

> "§ 102. Conditions for patentability; novelty and loss of right to patent.
>
> "A person shall be entitled to a patent unless—
>
> "(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or
>
> "(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or
>
> "(c) he has abandoned the invention, or
>
> "(d) the invention was first patented or caused to be patented by the applicant or his legal representatives or assigns in a foreign country prior to the date of the application for patent in this country on an application filed more than twelve months before the filing of the application in the United States, or
>
> "(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or
>
> "(f) he did not himself invent the subject matter sought to be patented, or
>
> "(g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other."

9. 35 U.S.C. § 103 (1970) provides:

> "§ 103. Conditions for patentability; non-obvious subject matter.
>
> "A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made."

The Special Verdict

Of the fifteen interrogatories answered by the jury in its special verdict,[10] these six are material here:

"Interrogatory No. 1

Is plaintiff's claimed invention 'different' from the prior art by its combining an electric power box and an electric meter on an upright elongated post with a fuel metering means, such as a gas meter, as stated in claim no. 4 of Nickola reissue patent no. 27,400?

Answer 'yes' or 'no'. Answer: *Yes*"

"Interrogatory No. 2

Does the combination of a fuel metering means, such as a gas meter, with an electric meter box, and electric power box, and an elongated pole, as stated in claim no. 4 of Nickola reissue patent no. 27,400, produce a combined result other than the result produced by a fuel metering means, an electric power box, an electric meter, and an elongated pole operating separately?

Answer 'yes' or 'no'. Answer: *Yes*"

"Interrogatory No. 3

Would a person or ordinary skill in the utility meter and power box mounting art at the time of the claimed invention have found the combined result of a fuel metering means, an electric power box, electric meter and an elongated pole, as stated in claim no. 4 of Nickola reissue patent no. 27,400, to be unusual and unexpected?

Answer 'yes' or 'no'. Answer: *Yes*"

"Interrogatory No. 4

Is plaintiff's claimed invention 'different' from the prior art by its combining electrical wiring, some of which runs upwardly along the upright pole and electrically connects to the electric meter, and some of which is connected to and extends from the power box, with the electric meter, electric power box, and fuel metering means as set forth in claim no. 21 of Nickola reissue patent no. 27,400?

Answer 'yes' or 'no'. Answer: *Yes*"

"Interrogatory No. 5

Does the combination of an electric meter and an electric power box with associated electrical wiring, a post, and a heating fuel metering means as set forth in claim no. 21 of reissue patent no. 27,400 produce a combined result differing from the results produced by the electric meter and power box with associated wiring, a post, and a heating fuel metering means operating separately?

Answer 'yes' or 'no'. Answer: *Yes*"

"Interrogatory No. 6

Would a person of ordinary skill in the utility meter and power box mounting art at the time of the claimed invention have found the combined result of electric wiring, a fuel metering means, an electric power box, electric meter box, and an elongated pole, as stated in claim No. 21 of Nickola reissue patent no. 27,400, to be unusual and unexpected?

Answer 'yes' or 'no'. Answer: *Yes*"[11]

Motion For Judgment Notwithstanding The Verdict

Peterson filed a written motion for judgment notwithstanding the verdict,[12] or alternatively for a new trial, accompanied by an extensive memorandum asserting "invalidity, as a matter of law."

The District Court

With its order granting Peterson's motion for judgment n. o. v., denying the alternative motion for new trial, setting aside the jury's answers to interrogatories 2, 3, 5, and 6 (and 15, setting damages at $6,230.00), declaring the two patent claims invalid, and entering judgment for Peterson, the district court filed an opinion containing:

[1]

"In order to be patentable, any claimed invention must satisfy the requirement of

10. See Fed.R.Civ.P. 49(a)

11. The jury was not asked at any point to define or describe the "combined result" referred to in interrogatories 2, 3, 5, and 6, nor was the jury asked to answer "yes" or "no" to any question spelling out a specific "combined result."

12. Under Fed.R.Civ.P. 50(b).

'novelty.' This requirement is the *sine qua non* of patentability. 35 U.S.C. § 101.[13] Since plaintiff does not claim to have invented either the gas meter, the electric meter, or the electric power box, but claims to have invented the combination of those elements in her Power Pack Pedestal, the element of novelty if such there is must reside in the combination of those elements. *Anderson's Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 90 S.Ct. 305, 24 L.Ed.2d 258 (1969)." [410 F.Supp. at 593, 193 USPQ at 445.]

[2]

"The issue of novelty was submitted to the jury in interrogatories numbers 2 and 5. The jury by answering 'yes' to each found that patent claim no. (4) and patent claim (21) both satisfied the novelty requirement. In viewing the evidence in the light most favorable to plaintiff, and drawing all reasonable inferences in her favor, the Court finds the conclusions of the jury to be unwarranted.

"Although a patent is presumptively valid, this presumption has no independent evidentiary weight. *Sperberg v. Goodyear Tire & Rubber Co.*, 519 F.2d 708 (CA 6, 1975) [*cert. denied*, 423 U.S. 987, 96 S.Ct. 395, 46 L.Ed.2d 303 (1975)]. Since the Court finds no evidence from which a jury could reasonably conclude that the novelty requirement of 35 U.S.C. § 101 was satisfied and substantial evidence that it was not satisfied, defendant's motion for judgment notwithstanding the verdict will be granted. *Gillham v. Admiral Corp.*, 523 F.2d 102 (CA 6, 1975) [*cert. denied*, 424 U.S. 913, 96 S.Ct. 1113, 47 L.Ed.2d 318 (1976)]." [*Id.* at 593-94, 193 USPQ at 445-46.]

[3]

"Likewise, this Circuit has recently restated the rule that every element of a combination invention must cooperate to produce a new result in order for there to be novelty within the meaning of 35 U.S.C. § 103. *Phillips Industries, Inc. & Mobil Temp, Inc. v. State Stove & Manufacturing Co., Inc.* [522 F.2d 1137 (6th Cir. 1975)]. The uncontroverted evidence before the Court is that there is no cooperation between the elements in plaintiff's claimed invention and that no cooperative result is produced other than the sum of the independent functions of those elements. Accordingly, the patent claims in issue will be held invalid for lack of novelty. 35 U.S.C. § 101." [*Id.* at 595, 193 USPQ at 446-47.]

[4]

"Whether persons of ordinary skill in the art disagree as to the safety of a product or techniques does not determine the issue of obviousness. The issue regarding obviousness is whether the differences embodied in a combination product and the result so produced would have been non-obvious to a person of ordinary skill in the art, not whether there was a controversy over whether such was safe. *In re Jansen*, 525 F.2d 1059 [, 187 USPQ 743] (Cust. & Pat.App., 1975) [, *cert. denied*, 425 U.S. 972, 96 S.Ct. 2170, 48 L.Ed.2d 796 (1976)]." [*Id.* at 596, 193 USPQ at 447.]

[5]

"Since the Court finds no evidence on which a finding of non-obviousness could be based, the Court will grant defendant's motion for judgment notwithstanding the verdict on interrogatories number (3) and number (6). In these interrogatories, the jury had answered that a person of ordinary skill in the art would have considered the result produced by the claimed combination inventions to be unusual and surprising." [*Id.*, 193 USPQ at 448.]

[6]

"In sum, the Court finds contrary to the determinations of the jury that the patent claims at issue are invalid both for lack of novelty and because of obviousness. Although the Court is reluctant to

13. 35 U.S.C. § 101 (1970) provides:

"§ 101. Inventions patentable

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title."

set aside the determinations of a jury, the Court recognizes that patent validity is primarily a question of law. *Dickstein v. Seventy Corp.*, 522 F.2d 1294 (CA 6, 1975) [*cert. denied*, 423 U.S. 1055, 96 S.Ct. 787, 46 L.Ed.2d 644 (1976)]; *Monroe Auto Equipment Co. v. Heckethorn Manufacturing & Supply Co.*, 332 F.2d 406, 411 (CA 6, 1964) [*cert. denied*, 379 U.S. 888, 85 S.Ct. 160, 13 L.Ed.2d 93 (1964)]. In determining the issue of validity, the Court is bound to scrutinize patented combinations of old elements with special care due to the improbability of finding a patentable invention in an assembly of old elements, *Phillips Industries, Inc. & Mobil Temp., Inc., v. State Stove & Manufacturing Co., Inc.*, 522 F.2d 1137 (CA 6, 1975); and because of the 'blight' on free commerce which is imposed by an invalid patent. *Hieger v. Ford Motor Co.*, 516 F.2d 1324 (CA 6, 1975) [*cert. denied*, 423 U.S. 1056, 96 S.Ct. 788, 46 L.Ed.2d 645 (1976)]." [*Id.* at 596 97, 193 USPQ at 448.]

The Issue

The dispositive issue is whether the district court erred in granting Peterson's motion for judgment n. o. v.

OPINION

I. Statutory Basis of the Novelty Requirement

[2] The statement that 35 U.S.C. § 101, *supra* note 13, sets forth the "novelty requirement" for patentability was in error. That section does employ the term "new," a synonym for "novel." Section 101, however, is a general statement of what may be patented ("process, • • • improvement thereof"). The words "new" and "useful," appearing twice, merely indicate the broad concept that a patent may not be obtained on that which is old or useless. Section 101 does not specify the conditions for patentability. The "requirements" (conditions) broadly referred to in § 101, including the requirement for "novelty," are set forth elsewhere in the statute.[14]

Congress accomplished the task of defining "new," i. e., of setting forth the "novelty requirement," in the succeeding section, 35 U.S.C. § 102, *supra* note 8, entitled "*Conditions* for patentability, *novelty* and loss of right to patent." (Emphasis added.) Thus, as the Ninth Circuit stated in *Reeves Instrument Corp. v. Beckman Instruments, Inc.*, 444 F.2d 263, 270, *cert. denied*, 404 U.S. 951, 92 S.Ct. 283, 30 L.Ed.2d 268 (1971), "[t]he requirement of novelty is more specifically defined in 35 U.S.C. § 102 • • •." With the term carefully spelled out by Congress in § 102, no warrant exists for looking to the broad, undefined word "new" in § 101 for understanding or application of the novelty requirement. There being a clear statutory base for the novelty requirement in § 102, judicial application of the novelty requirement should focus on that specific provision.[15]

14. Patent cases being relatively infrequent, comments of potential applicability may be found in "Judges' Primer Patent and Copyright Law and Procedure" in Part VIII of *Seminars For Newly Appointed U.S. District Judges* (1970 71, Federal Judicial Center, Washington, D. C.), and "Special Problems in Patent Cases," 66 F.R.D. 529 (1975) (reprinted in 57 J.Pat.Off. Soc'y 675 (1975)) presented at the Federal Judicial Center, October 16, 1974. For discussion of jury trials in patent cases, see Ropski, *Constitutional and Procedural Aspects of the Use of Juries in Patent Litigation* (pts. I II), 58 J.Pat.Off.Soc'y 669, 673 (1976).

15. "The novelty required is not novelty in an absolute sense, as the statute defines what is to be looked to in order to show that an invention is not new." Federico, "Commentary On The New Patent Act [of 1952]" in 35 U.S.C.A. p. 1, at p. 17 (1954). Thus, prior public knowledge or use in a foreign country would destroy novelty if the novelty requirement resided merely in the word "new" in the absolute sense in which it appears in § 101, whereas Congress has provided in § 102 that such foreign circumstances do not destroy novelty under the statute. Similarly, under proper circumstances, a person may be entitled to a patent, even though that person was not the first to make the invention. *See, e. g., Howarth v. Lee*, 564 F.2d 948, 195 USPQ 701 (Cust. & Pat.App.1977) (first inventor suppressed or concealed the invention, therefore, second inventor entitled to priority under 35 U.S.C. § 102(g)).

Legislative history is in accord. S.Rep. No.1979, 82nd Cong., 2d Sess. (1952) states at p. 5, U.S.Code Cong. & Admin.News 1952, pp. 2394, 2399,

> "Section 101 sets forth the subject matter that can be patented, 'subject to the conditions and requirements of this title.' The conditions under which a patent may be obtained follow, and *section 102 covers the conditions relating to novelty.*" [Emphasis added.]

then at p. 6, U.S.Code Cong. & Admin.News 1952, p. 2399,

> "*Section 102, in general, may be said to describe the statutory novelty required for patentability, and includes, in effect, an amplification and definition of 'new' in section 101.*" [*Emphasis added.*]

and finally at p. 17, U.S.Code Cong. & Admin.News 1952, p. 2409 in the "Revision Notes,"

> "The corresponding section of existing statute is split into two sections, section 101 relating to the subject matter for which patents may be obtained, and *section 102 defining statutory novelty* and stating other conditions for patentability." [Emphasis added.]

Statements identical to the foregoing appear in H.R.Rep.No.1923, 82nd Cong., 2d Sess. (1952) at pp. 6, 7, and 17, respectively.

As stated in *In re Bergstrom*, 427 F.2d 1394, 1401, 57 CCPA 1210, 1249, 166 USPQ 256, 262 (1970):

> "[T]he criteria for determining whether given subject matter is 'new' within the meaning of § 101 are no different than the criteria for determining whether that subject matter possesses the 'novelty' expressed in the title of § 102. The word 'new' in § 101 is defined and is to be construed in accordance with the provisions of § 102. Thus, that which possesses statutory novelty under the provisions of § 102 is also new within the intendment of § 101. We have found no evidence of Congressional intent to define the word 'new' as used in § 101 in any different manner." [Footnote omitted.]

II. Peterson Did Not Carry His Burden of Proving Lack of Novelty

Considering the finding of "no evidence from which a jury could reasonably conclude that the novelty requirement • • • was satisfied and substantial evidence that it was not satisfied" (410 F.Supp. at 594, 193 USPQ at 446) inconsistent with the jury's answers to interrogatories 2 and 5, *supra*, the court set those answers aside.

[3] The no-evidence-of-novelty finding cannot stand in the absence of record evidence: (1) that the identical invention, i. e., the precise *combination* of structural elements recited in each claim, "was known or used by others in this country • • • before the invention thereof by [Nickola]" (§ 102(a)); or (2) that the identical invention recited in each claim was "in public use or on sale in this country, more than one year prior to the date of [Nickola's] application" (§ 102(b)).[16] No such evidence is of record.

[4] The "substantial evidence," referred to as defeating novelty, was not specified. Peterson's only evidence touching novelty was Boyle's testimony that "customers" had requested him to make holes for a gas meter bracket in some of his electric meter pedestals. Boyle did not testify that he had ever seen a gas meter so mounted. There was no evidence that any customer had actually mounted a gas meter on a Boyle pedestal and no evidence that the utility company had given the required approval for any such mounting. There was thus no evidence that gas meters had been mounted on electric meter pedestals before Nickola's invention, i. e., that Nickola's *combination* was old. Peterson's evidence to show lack of novelty was thus wholly inadequate to meet his burden under § 102.

Peterson having failed to meet his burden, evidence of novelty was unnecessary. 35 U.S.C. § 282, *supra* note 7. Nonetheless, Nickola's utility witnesses testified without challenge that Consumers had not approved a combination gas and electric pedestal be-

16. The other subsections of § 102 have no application to the facts of this case.

fore approving Nickola's in December, 1967. Were it necessary to evaluate the evidence, therefore, the novelty of Nickola's particular claimed combination would appear unquestionably established.

In all events, novelty is a question of fact, as discussed below, and it is clear that the evidence touching upon novelty, such as it was, was sufficient to have been submitted to the jury. Under such circumstances, a conclusion that no reasonable juror could have found the inventions recited in claims 4 and 21 to have been novel constitutes an error of law.

III. New Result v. Novelty

Though the jury's answers to interrogatories 2 and 5 were set aside, on the theory that they were inconsistent with a lack of novelty finding, 2 and 5 were not the material interrogatories on the novelty issue. Those interrogatories were directed to a different question—whether the inventions "produce a combined result" other than (interrogatory 2), or differing from (interrogatory 5), "the result produced by [the individual structural elements] operating separately." Thus, interrogatories 2 and 5 are concerned with the overall *function* or *operation* of the combination of individual structural elements, not with the novelty of the combination itself.

The function of the combination can be material, not on the novelty issue, but on the separate and distinct issue of nonobviousness (35 U.S.C. § 103, *supra* note 9).

The view that "novelty" was covered in interrogatories numbers 2 and 5 and that there must be "a new result in order for there to be novelty within the meaning of 35 U.S.C. § 103",[17] intermixed the question of novelty (whether the particular *combination* claimed had existed before Nickola made it) with one of the indicia (a "new" or "unexpected" result) sometimes useful in determining the entirely different question of nonobviousness. The distinction is important, for patent law is entirely statutory and there is not a word in the statute requiring a new result or a new function as a condition of patentability. Indeed, a requirement that the result must itself be novel would nullify the statutory provision encouraging disclosures of "new and useful improvements thereof." 35 U.S.C. § 101.

Most patents are granted on improvements of prior devices;[18] and the improved device will inherently achieve the same basic result as that achieved, and will perform the same basic function as that performed, by the prior device. An improved jet engine, for example, necessarily achieves the same result and performs the same function—propulsion—as that achieved by prior jet engines, yet it may constitute a "new and useful improvement" entitled to the protection provided by our patent laws, 35 U.S.C. § 101, as an incentive to make and disclose improvements in prior devices. Similarly, the result achieved by the horse, the automobile, and the airplane is the same—transportation. Only the speed of achievement varies. Yet it may be supposed that one unaware of the statute and its constitutional background would recognize the airplane as a patentable improvement over the horse and the automobile. To require in every case that a new "function" or new "result" be performed or achieved, would be destructive of "the progress of * * * useful arts" goals sought in the constitutional-statutory scheme.

The interrogatories relating to novelty were numbers 1 and 4, which were not

17. The opinion below includes the statement that "this Circuit has recently restated the rule that every element of a combination invention must cooperate to produce a new result in order for there to be *novelty* within the meaning of 35 U.S.C. 103" (410 F.Supp. at 595, 193 USPQ at 446-47, emphasis added), citing *Philips Industries Inc. v. State Stove & Manufacturing Co., Inc.*, *supra*. *Philips Industries* involved no question of novelty in the combination claimed.

18. In *General Electric Co. v. Wabash Appliance Corp.*, 304 U.S. 364, 368, 58 S.Ct. 899, 901, 82 L.Ed. 1402 (1938), the Court noted congressional recognition that "most inventions represent improvements on some existing article, process or machine. * * *" More than 70,000 patents are currently issued each year. *Commissioner of Patents and Trademarks Annual Report, Fiscal Year 1976* (1977).

disturbed. Those interrogatories inquired whether the inventions were "different" from the prior art, i. e., whether Nickola's combination was "novel" in the statutory sense.[19] 35 U.S.C. § 102. The jury answered "yes"; and in the absence of record evidence indicating the presence of the claimed combination in the prior art, that answer was correct.

[5] Though it was error to hold Nickola's patent claims invalid for lack of novelty, the district court did not err in its grant of judgment n. o. v., for novelty alone will not render an invention patentable. Some new and useful inventions are patentable. Some are not. To be patentable a new and useful invention must meet the third requirement—nonobviousness—set forth in 35 U.S.C. § 103.[20]

IV. Nonobviousness v. Novelty

Confusion of the novelty requirement defined in § 102 with the nonobvious subject matter requirement defined in § 103 is avoided when the statutory sections are applied in proper sequence. The starting point in applying § 103 is the recognition that the claimed invention—the claimed subject matter as a whole—is novel under § 102. If the claimed subject matter be old, consideration of § 103 is unnecessary. The first clause of § 103 states that: "A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title." The heart of § 103 then follows, "if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains."

Though, early on, the opinion below correctly stated, "novelty if such there is must reside in the combination of those elements," (410 F.Supp. at 593, 193 USPQ 445) citing *Anderson's-Black Rock, Inc. v. Pavement Salvage Co., Inc.*, 396 U.S. 57, 90 S.Ct. 305, 24 L.Ed.2d 258 (1969), it later stated, incorrectly, that "the determination of novelty for combination inventions does not turn on whether the old elements are arranged in a new manner which serves some useful function but on whether the function produced by that arrangement is itself new." (410 F.Supp. at 595, 193 USPQ at 446.) As above stated, a requirement for a

19. "[A] device lacks novelty if there is, or has been, a substantially identical prior device." *Monroe Auto Equip. Co. v. Heckethorn Mfg. Co.*, 332 F.2d 406, 414 (6th Cir.), *cert. denied*, 379 U.S. 888, 85 S.Ct. 160, 13 L.Ed.2d 93 (1964).

20. There is no requirement that a court find "invention" present. The difficulty experienced by courts in defining that amorphous, ephemeral, indefinable label was noted by the Court in *Graham v. John Deere Co.*, 383 U.S. 1, 11-12, 86 S.Ct. 684, 690, 15 L.Ed.2d 545 (1966):

> "The language in the case [*Hotchkiss v. Greenwood*, 52 U.S. (11 How.) 248, 267, 13 L.Ed. 684 (1850)], and in those which followed, gave birth to 'invention' as a word of legal art signifying patentable inventions. Yet, as this Court has observed, '[t]he truth is the word [invention] cannot be defined in such manner as to afford any substantial aid in determining whether a particular device involves an exercise of the inventive faculty or not.' *McClain v. Ortmayer*, 141 U.S. 419, 427, 12 S.Ct. 76, 78, 35 L.Ed. 800 (1891). *A & P Tea Co. v. Supermarket Corp.* [340 U.S. 147] at 151, 71 S.Ct. 127 at 129, 95 L.Ed. 162. Its use as a label brought about a large variety of opinions as to its meaning both in the Patent Office, in the courts, and at the bar." That difficulty led Congress, 26 years ago, Patent Act of 1952, 66 Stat. 792 (enacting Title 35, U.S.Code), to specify nonobviousness of the subject matter as a whole to one skilled in the art at the time the invention was made as the "new statutory formulation" (*John Deere, Id.* 383 U.S. at 12, 86 S.Ct. 684) of the third requirement for patentability. Congress further mandated that "invention" should henceforth refer to the "invention or discovery" (35 U.S.C. § 100(a)), i. e., the *thing* invented or discovered. Difficulties since 1952 have centered on inapt references to old cases calling on courts to find "invention," and on judicial efforts to supply semantic mechanisms as aids in defining "obviousness." Because inventions differ so widely, application of all such mechanisms to all inventions, as rules of law, would risk destruction of the entire statutory scheme. See note 22, *infra*. Exercise of the judicial process, in determining whether an invention has met the nonobviousness requirement, turns on application of the entire statutory provision, 35 U.S.C. § 103, to all relevant evidence of record.

new function would nullify the statutory provision for patenting "improvements" which necessarily perform the old function of the now-improved device.

As authority for the view that a new function must be found, the opinion below quoted this part of the opinion in *Anderson's-Black Rock*, *supra*, 396 U.S. at 62, 90 S.Ct. at 308:

> "We conclude that while the combination of old elements performed a useful function,[4] it added nothing to the nature and quality of the radiant-heat burner already patented
>
> [4] 35 U.S.C. § 101 provides:
>
> "'Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.'
>
> "Absent here is the element 'new.' For as we have said, the combination patent added nothing to the inherent characteristics or function of the radiant heat burner."

The sole issue in *Anderson's-Black Rock* was nonobviousness, not novelty. The Court stated that "[i]n this case the question of patentability of the combination turns on the meaning of 35 U.S.C. § 103 which the court reviewed in the *Graham* [*v. John Deere Co.*] case [383 U.S. 1], at 13-17, 86 S.Ct. [684] 691-693 [15 L.Ed.2d 545] [1966]," (396 U.S. at 61-62, 90 S.Ct. at 308, footnote omitted) and "[w]e conclude that the combination was reasonably obvious to one with ordinary skill in the art" (*Id.* at 60, 90 S.Ct. at 307).

The patentee-respondent in *Anderson's-Black Rock* had argued, as evidence of nonobviousness, that its invention "involves a combination of prior art which produces the new and useful *result* [emphasis added] of eliminating the cold joint" in asphalt pavements. (*Id.* at 59, 90 S.Ct. at 307.) The patentee was arguing that the *combination* of structural elements, when operating in the intended way, produced an unexpected result, and that this was evidence of nonobviousness of the combination.

The quote from *Anderson's-Black Rock* in the opinion below related entirely to one element, the radiant-heat burner, not to the claimed combination. In footnote 4, the Court merely stated that the combination added nothing to the function of the radiant-heat burner element. Whatever relevance an added function of the *burner* may or may not have had to determination of obviousness in the combination, the Court was not saying that the total *combination* of structural elements lacked "novelty." Nor was the Court destroying the § 101 provision for "improvements" by substituting its own rule of law, i. e., by adding to the statute a requirement that an invention must perform a new function as a condition of patentability.

The findings below, that "there is no cooperation between the elements in plaintiff's claimed invention" and that "no cooperative result is produced other than the sum of the independent functions of those elements," (410 F.Supp. at 595, 193 USPQ at 447), were cited as a second ground for holding the claims invalid "for lack of novelty." Nickola admitted that no "cooperation" occurs between the individual structural elements, and that no "cooperative result" is produced; but those facts do not support a holding that the claims are invalid "for lack of novelty."

[6] Lack of cooperation, like the result achieved or function performed, is not material on the issue of novelty, though it may be material on the issue of nonobviousness. The elements needn't "cooperate," or produce a "cooperative result," for the combination *per se* to be novel. To conclude that a combination lacks novelty because its elements don't cooperate is to find novelty lacking without regard to the prior art, and is improper under the statute. *Cf. Reeves Instrument Corp. v. Beckman Instruments, Inc.*, *supra*, 444 F.2d at 270.

[7] The issues of novelty and nonobviousness differ in another regard. As appears below, the issue of obviousness-nonobviousness is ultimately determined as a conclusion of law, involving as it does, consideration of the subject matter of invention as a whole (sometimes including the result achieved and function performed as part of the "whole"), and consideration of a legal ghost called "a person having ordinary skill in the art" (like the "reasonable man" ghost in negligence cases). Novelty and utility, on the other hand, are determinable as issues of fact. The invention is either new and useful or it is not. The amount of newness and usefulness need be only miniscule to avoid a finding of lack of novelty. That miniscule difference may or may not indicate that the invention as a whole would have been obvious, but it cannot indicate that the invention was old at the time it was made. So here, a miniscule difference, adding a gas meter, made Nickola's combination novel. On the basis of all the evidence, however, as we shall see, the combination, the subject matter as a whole of the invention, would have been obvious, as a matter of law, to a person having ordinary skill in the art.

V. Obviousness Is A Question of Law

[8] The Supreme Court settled the question in *Graham v. John Deere Co.*, *supra*, 383 U.S. at 17, 86 S.Ct. at 694, where it stated: "While the ultimate question of patent validity is one of law, *A. & P. Tea Co. v. Supermarket Corp.*, [340 U.S. 147,] at 155, 71 S.Ct. [127] at 131, [95 L.Ed. 162, 1950], the § 103 condition, which is but one of three conditions, each of which must be satisfied, lends itself to several basic factual inquiries."

This court has consistently held obviousness an ultimate conclusion of law reviewable by an appellate court. *Dickstein v. Seventy Corp.*, 522 F.2d 1294, 1297 (6th Cir. 1975), *cert. denied*, 423 U.S. 1055, 96 S.Ct. 787, 46 L.Ed.2d 644 (1976); *Monroe Auto Equip. Co. v. Heckethorn Mfg. Co.*, 332 F.2d 406, 411 (6th Cir.), *cert. denied*, 379 U.S. 888, 85 S.Ct. 160, 13 L.Ed.2d 93 (1964).

In *Kolene Corp. v. Motor City Metal Treating, Inc.*, 440 F.2d 77, 81 (6th Cir.), *cert. denied*, 404 U.S. 886, 92 S.Ct. 203, 30 L.Ed.2d 169 (1971), the point was explained with particular reference to the *Graham v. John Deere Co.* standards for determining obviousness under § 103.

> "The question of 'obviousness' in determining patent validity is a mixed question of both fact and law. *Kaiser Industries v. McLouth Steel Corp.*, 400 F.2d 36, 41 (6th Cir.); *National Filters, Inc. v. Research Products Corp.*, 384 F.2d 516 (5th Cir.); *Hensley Equipment Co. v. Esco Corp.*, 375 F.2d 432 (9th Cir.). In ruling on that question the Supreme Court said:
>
> '(1) Under § 103, the scope and content of the prior art are to be determined;
>
> '(2) Differences between the prior art and the claims at issue are to be ascertained;
>
> '(3) And the level of ordinary skill in the pertinent art resolved.
>
> '(4) Against this background, the obviousness or nonobviousness of the subject matter is determined.
>
> '(5) Such secondary considerations [21] as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy.' [Note: Clauses separated and numbered for convenience.] *Graham v. John Deere Co.*, 383 U.S. 1, 17, 86 S.Ct. 684, 694, 15 L.Ed.2d 545.
>
> "When the District Court determines items numbered 1, 2 and 3, it makes findings of fact which are binding on appeal unless the findings are clearly erroneous. Rule 52(a), Fed.R.Civ.P. It is the ultimate determination of the trial judge (item number 4 above) which is a conclusion of law with which this Court

[21] The adjective "secondary" could not have meant that determination of obviousness-nonobviousness can be made in disregard of step (5) considerations when they are present. Failure to consider all relevant evidence would be both unjust and injudicious. Moreover, when a conclusion of nonobviousness is reached at step (4) there is no need to consider step (5). Hence, if it were permissible to reach a conclusion of obviousness without consideration of the evidence in step (5), the latter would never be considered.

may disagree based on the established findings of fact. See *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Sup. Co.*, 332 F.2d 406 (6th Cir.), cert. denied, 379 U.S. 888, 85 S.Ct. 160, 13 L.Ed.2d 93."

VI. The Merits of the Nonobviousness Issue

[9] In setting aside the jury's answers to interrogatories 3 and 6, the district court correctly stated the standards for determining obviousness under 35 U.S.C. § 103 (410 F.Supp. at 595, 193 USPQ at 447):

"The standards for determining obviousness under 35 U.S.C. § 103 were established by the Supreme Court in *Graham v. John Deere Co.*, 383 U.S. 1, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966), and reiterated by this Circuit in *Bolkcom v. Carborundum Co.*, 523 F.2d 492, 500 (CA 6, 1975) [cert. *denied*, 425 U.S. 951, 96 S.Ct. 1725, 48 L.Ed.2d 194 (1976)]:

> "'Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented.' "[22]

On the merits of the nonobviousness issue, we agree with the following portion of the district court's opinion (410 F.Supp. at 595-96, 193 USPQ at 447):

"Applying these [*Graham v. John Deere Co.*] standards to the evidence produced at trial, the Court finds that a jury could not reasonably have concluded that either of the claimed inventions set forth in claims nos. (4) and (21) of plaintiff's Reissue Patent would have been nonobvious to a person of ordinary skill in the art. From plaintiff's testimony, it is plain that the mounting of both electric meters and gas meters on posts [i. e., in gang racks] was the established practice prior to her claimed invention. Part of the prior art was the combination of an electric meter and electric power box on one post, as was constructed by Mr. Boyle in an unpatented form since 1962, which is prior to the date of plaintiff's claimed invention. It was also common practice to mount more than one electric meter on a post, as is shown by the statements in plaintiff's original patent, no. 3,502,785, issued March 24, 1970.

"The only difference between plaintiff's claimed invention and the prior art is that plaintiff's device mounted an electric and a fuel meter with a power box on a post rather than many electric meters or just an electric meter and a power box.

"From the state of prior art it is clear that it was obvious to a person of ordinary skill in the art that a post could be made to support both a gas and an electric meter."[23]

We agree also with the district court's holding, in this particular case that obviousness did not depend on "whether there was a controversy over whether such was safe." (410 F.Supp. at 596, 193 USPQ at 447.) That is not to say, however, that a safety controversy can never constitute evidence relevant to a determination of nonobviousness.

If others had recognized the advantage and dangers in mounting both electric and gas meters on a single post at each mobile home site, but had been unable to devise a means for achieving the advantages while avoiding the dangers, and if Nickola's contribution to the progress of the useful arts had been such means, evidence of a safety controversy would have been eminently relevant to the determination of obviousness of those means. When others in the field say "it won't work," that fact is strong evidence that whatever does work would have been nonobvious. *See United States v. Adams*, 383 U.S. 39, at 44 and 52, 86 S.Ct. 708, 15 L.Ed.2d 572 (1966). The outcome might have been different here if the inventor had contributed something that unlocked a safety puzzle. If here, for example, Nickola had in some manner rendered safe a previously unsafe combination, the fact that no one thought safety achievable would be strongly probative of nonobviousness.

Here, however, no one said, "it won't work." Mounting of electric meters and boxes on a single post at mobile home sites was old and the advantages of so mounting all meters were recognized. Others thought that adding a gas meter would not be safe, not that it would not "work." Nickola merely added the gas meter, doing nothing unconventional to make the combination safe.[24] The district court recognized the presence of a similar fact pattern in *In re Jansen*, 525 F.2d 1059, 187 USPQ 743 (Cust. & Pat. App. 1975), *cert. denied*, 425 U.S. 972, 96 S.Ct. 2170, 48 L.Ed.2d 796 (1976), wherein the inventor combined vitamin B_{12} and folic acid in specific quantities, against expert opinion that the preparation would be unsafe medication. The inventor did nothing to render the combination safe, but claimed merely the combination itself, which was old except for the quantities involved. The change in quantity was held to have been obvious in view of all the evidence, and, the invention not being directed to a means achieving safety in the face of safety objections, evidence of those objections was considered non-probative. So too, evidence of a safety controversy in the present case is without probative value.

22. The last sentence of the quoted paragraph is, "As indicia of obviousness or nonobviousness, these inquiries may have relevancy."

In portion [6] of the opinion below, quoted *supra*, reference is made to "the improbability of finding a patentable invention in assembly of old elements." Because virtually every invention is an assembly of old elements, see *Reeves Instrument Corp. v. Beckman Instruments, Inc.*, *supra*, 444 F.2d at 270 n. 4; *Reiner v. I. Leon Co.*, 285 F.2d 501, 503 (2d Cir. 1960); *B. G. Corp v. Walter Kidde & Co.*, 79 F.2d 20, 21 (2d Cir. 1935), the statement cannot be universally applied without risk of destroying the patent system. Unable to create from nothing, man must use old elements, which must perform their normal individual functions. A valve must valve, an electrical capacitor must exhibit capacitance, etc.

Similarly, the opinion below elsewhere refers to "combination" inventions and to "combinations of old elements," as though the statute were to be applied differently to "combination" inventions. Court opinions referring to "combination" inventions have not clearly distinguished patentability criteria applicable to different types of inventions. The statute makes no such distinction in patentability criteria (the word "combination" appears only in 35 U.S.C. § 112, dealing with claim interpretation, and in 35 U.S.C. § 271(c), dealing with contributory infringement). From the facts in some cases, the reference to "combination" may have been intended to separate mechanical or machine inventions from chemical, electrical or process-type inventions. But the statute makes no such distinction; and chemical inventions are normally combinations of chemical elements, electrical inventions are combinations of electrical circuit elements, and process inventions are combinations of steps. No statutory warrant appears, therefore, for treating the patentability of "combination" inventions differently in law from the patentability of some other type of invention undescribed and undefined.

The opinion below considered the "differences * * * and the result," in compliance with the statutory requirement that "the subject matter as a whole" be considered, 35 U.S.C. § 103, and with the same requirement in *John Deere* for determination of "the obviousness or nonobviousness of the subject matter." Thus was avoided the error of determining only whether the particular differences would themselves have been obvious or nonobvious.

23. The opinion below includes the statement that there was "no evidence on which a finding of non-obviousness could be based". (410 F.Supp. at 596, 193 USPQ at 448). The better statement would have been that there was "no evidence sufficient to rebut that offered by Peterson in support of a legal conclusion of obviousness." Absent facts established by him who has the burden of proving obviousness, 35 U.S.C. § 282, evidence on which to base a legal conclusion of nonobviousness is unnecessary.

24. Pointing to claim 4, Nickola says mounting the gas meter below the electric meter shortens the gas inlet exposure above the ground. There was no evidence of what specific events cause dangers. In any event, it would have been obvious that a short pipe provides less exposure than a long pipe. The district court correctly recognized that the low mounting feature is incapable in this case of satisfying the requirement for nonobviousness.

The district court correctly found the evidence of long-felt need insufficient. As Nickola testified, she made her invention immediately after "gas was newly introduced," and there was no evidence that others had even tried to fill a need for a post-electric meter-gas meter combination.

The district court correctly found the commercial success evidence also insufficient in this case. That determination was based on the view that: "The commercial success of the product is accounted for by plaintiff's patent monopoly [25] and the introduction of underground wires and piped natural gas to mobile home parks." (410 F.Supp. at 596, 193 USPQ at 448.) Absent demand for a product, however, there can be no commercial success. No patent can itself create market demand. A patent on the unwanted is worthless. The advent of piped gas was equally irrelevant as a cause for commercial success, because, as the testimony showed, the gas could have been and was piped to a central rack on which gas meters were mounted. To the extent that the court had in mind Nickola's early start with her product, promptly after gas was available to mobile parks, as the cause for her sales, the statement would apply to the evidence, but neither the existence (or non-existence) of the patent, nor the mere availability of gas, could account for purchasers' decisions to buy Nickola's product.

The primary reason for failure of the commercial success evidence in this case is its inadequacy. That evidence consists entirely of Nickola's statement that "40 to 50 thousand" units had been sold over a period of seven or eight years. An average of only 6,000 to 7,000 sales annually would not constitute a "rush to the invention" probative of nonobviousness. There was no evidence that a fortune had been waiting in the wings for him who first made the invention available to the public. It is that waiting fortune which implies that if the invention had been obvious it would surely have been earlier made. Further, there was no evidence of total demand, the extent to which that demand was met by the patented product, the extent to which the market abandoned earlier products in favor of the product patented, the extent to which advertising contributed or did not contribute to sales, and the like. In short, Nickola's commercial success evidence did not rise to the level of an indicium of nonobviousness listed as potentially relevant in *Graham* v.

25. The reference to a "patent monopoly" is not uncommon. Others, particularly those charged with infringement, have long employed the phrase pejoratively. But a valid patent never confers a monopoly in the traditional, historical, anticompetitive sense, as was explained by the Supreme Court in *United States* v. *Dubilier Condenser Corp.*, 289 U.S. 178, 186, 53 S.Ct. 554, 557, 77 L.Ed. 1114 (1933):

> "Though often so characterized, a patent is not, accurately speaking, a monopoly, for it is not created by the executive authority at the expense and to the prejudice of all the community except the grantee of the patent. *Seymour* v. *Osborne*, 11 Wall. 516, 533, 20 L.Ed. 33. The term monopoly connotes the giving of an exclusive privilege for buying, selling, working or using a thing which the public freely enjoyed prior to the grant. Thus a monopoly takes something from the people. An inventor deprives the public of nothing which it enjoyed before his discovery, but gives something of value to the community by adding to the sum of human knowledge. * * * He may keep his invention secret and reap its fruits indefinitely. In consideration of its disclosure and the consequent benefit to the community, the patent is granted." [Footnote and citations omitted.]

Like any property, a patent may be used in a plan to achieve a monopoly violative of our antitrust laws. But proof of that fact is required. *See Walker Process Equip., Inc.* v. *Food Mach. & Chem. Corp.*, 382 U.S. 172, 177-78, 86 S.Ct. 347, 15 L.Ed.2d 274 (1965). A patented product rarely enjoys a dominant share in the relevant market. As noted in *Northern Pac. Ry.* v. *United States*, 356 U.S. 1, 10 n. 8, 78 S.Ct. 514, 520, 2 L.Ed.2d 545 (1958):

> "Of course it is common knowledge that a patent does not always confer a monopoly over a particular commodity. Often the patent is limited to a unique form or improvement of the product and the economic power resulting from the patent privileges is slight." Congress has provided that patents "shall have the attributes of personal property." 35 U.S.C. § 261. The patent right, solely that of excluding others, is the fundamental element of all human rights called "property." The statutory, and therefore proper, characterization is not "patent monopoly," but "patent property."

John Deere, *supra*, 383 U.S. at 18,[26] 86 S.Ct. 684.

Conclusion

We concur in the district court's holding that the inventions recited in claims 4 and 21 would have been obvious at the time the inventions were made to a person having ordinary skill in the art, and that the claims were therefore invalid under 35 U.S.C. § 103. We concur also in the district court's implicit holding that the jury could not reasonably have found facts sufficient to support a legal conclusion that claims 4 and 21 are valid. Accordingly, we *affirm* the district court's grant of Peterson's motion for judgment notwithstanding the verdict.

AFFIRMED.

UNITED STATES of America, Appellee,

v.

Robert Anthony JENNEWEIN, Appellant.

No. 78-5076.

United States Court of Appeals, Sixth Circuit.

Argued July 5, 1978.

Decided Aug. 10, 1978.

Defendant was convicted in United States District Court for the Western District of Kentucky at Louisville, Oren R. Lewis, J., of theft from interstate shipment, and he appealed. The Court of Appeals held that though inference of guilty knowledge may be drawn from the fact of unexplained possession of recently stolen goods, additional inference that would permit finder of fact to conclude that the possessor of stolen property by virtue of such possession may be deemed to have participated in its theft is not justified.

Vacated and remanded.

Larceny ⇐64(1)

Though inference of guilty knowledge may be drawn from the fact of unexplained possession of recently stolen goods, additional inference that would permit finder of fact to conclude that the possessor of stolen property by virtue of such possession may be deemed to have participated in its theft is not justified.

Anthony H. Ambrose, Louisville, Ky., for appellant.

Albert Jones, U. S. Atty., James H. Barr, Asst. U. S. Atty., Louisville, Ky., Mikell Grafton, Prospect, Ky., for appellee.

Before PHILLIPS, Chief Judge, LIVELY, Circuit Judge, and PECK, Senior Circuit Judge.

PER CURIAM.

This appeal, perfected from the defendant-appellant's conviction pursuant to jury

26. The opinion below, in the midst of its novelty discussion, states: "The Court went on to state that commercial success, without invention, will not make patentability." (410 F.Supp. at 594, 193 USPQ at 446, citing cases.) The statement must necessarily mean only that commercial success *not due to the merits of an invention* cannot be an indicium of nonobviousness. The statement cannot be taken literally without attributing circuitous reasoning to the Court. The Court in *John Deere* recognized that commercial success could serve as evidence of nonobviousness and thus of patentability. At the time the statement first appeared (1950), courts equated "invention" to patentability, see note 20, *supra*. Taken literally, therefore, the statement would read "evidence of patentability (commercial success) without patentability (invention) will not make patentability." The statement has led on occasion to a total disregard of the evidence of nonobviousness represented by commercial success. If an invention is entirely lacking in novelty, no amount of commercial success can serve as evidence of its patentability. When the issue is obviousness-nonobviousness, however, a determination that an invention would have been obvious should be made, as should the determination of any issue in any type of case, only after consideration of *all* relevant evidence, see note 21, *supra*.

Q What were you told to think about?
A A center pedestal seat.
Q Just a center pedestal seat?
A Yes.
Q What were the objectives of designing a center pedestal seat?

What were you trying to get out of that?

What were you trying to accomplish?

A I haven't the faintest.

I wasn't trying to accomplish anything. I was asked to do it.

Q Just locating it in the center?
A Basically all I was told to think about was locating a support in the center of the seat, basically. That is all I was told, asked to do.
Q Who asked you to do that?
A Mr. Owen, Brooks -- I have forgotten one of them.

This was in, sometime around the first part of the year, February, March or something. I have forgotten when it was.

Q Was that 1972?
A '70 it was, by golly. I started playing around because -- I mean, they wanted to know if it could be done and I don't make answers on something that serious.

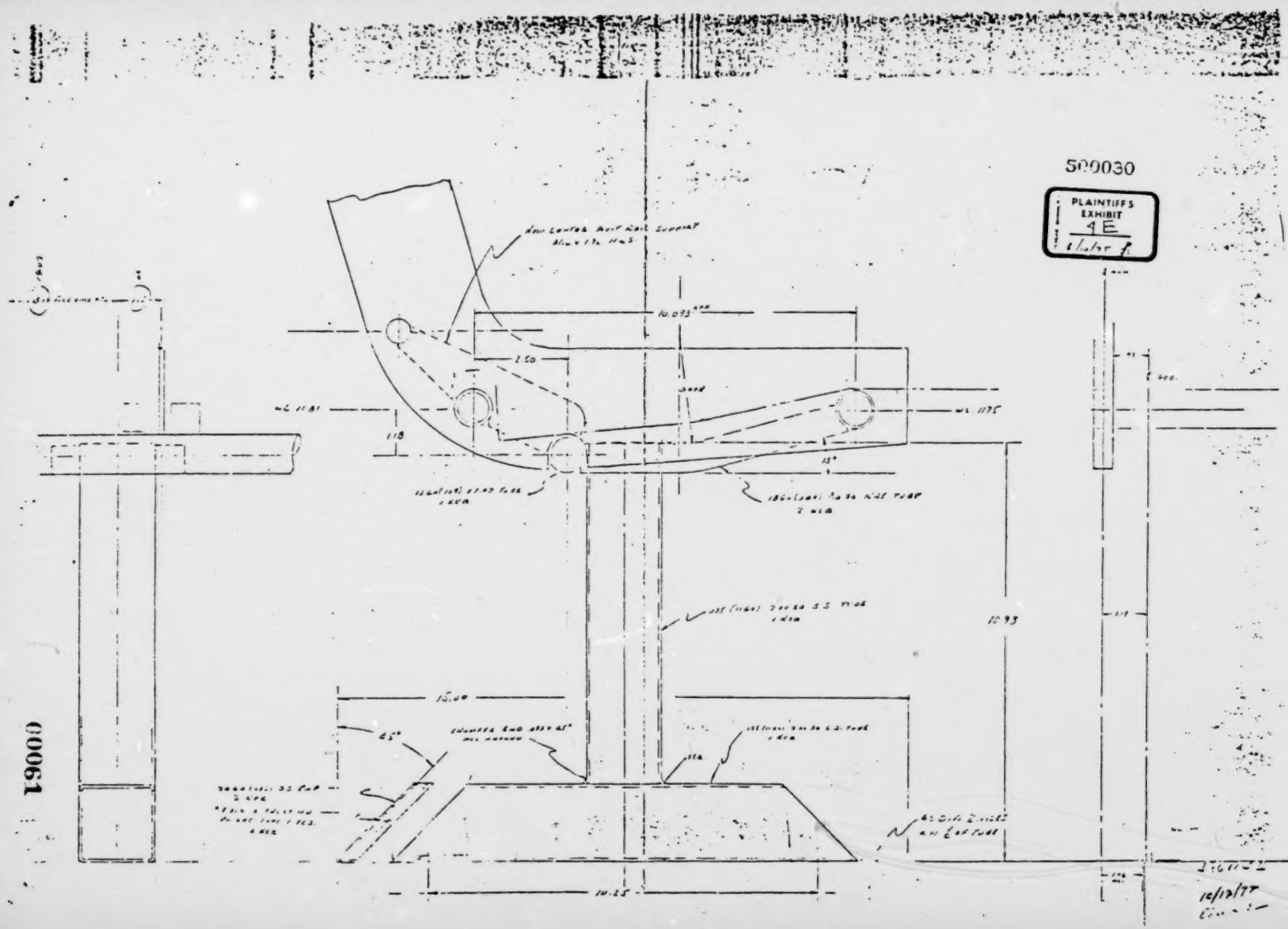
A He has the ability to design, develop and stress on paper and then it is usually group meetings to approve or disapprove what he has developed, as far as the seat is concerned.
Q Does his opinion carry some weight in terms of --
A Yes. It is all subject to Hughie Owen's approval, who is his boss.

They never reach a point without being tested before they get to consideration.

Q Plaintiff asked in interrogatory number 15, when was the decision first made to introduce a National inverted "T" pedestal seat.

Were you asked to contribute to the answer to that interrogatory?

A If I remember --
Q I mean contribute information.
A Not information, but I recommended that, because of the inquiries we have had from the field and the O.E.M.'s, and customers to start moving on the project. This was a couple of months in advance or beyond -- it was getting to be a hot and heavy subject.
Q You felt the definite pressure to come up with a center pedestal, I take it?
A Yes.



19000

A I think he is with Regal Manufacturing Company.
Q Have you read the Barecki Patent which is involved in this present suit?
A I have gone through it, yes.
Q Do you have any problems in understanding the structure of that?
A I understand what he has got, basically.

I don't understand all his claims for it, but I understand the structure.

Q Would you describe what that structure is?

MR. LYON: Objection. The document speaks for itself.

If you are going to ask him to describe what the patent shows, let's show him a copy of the patent. There is no reason to speak abstractly about it. It speaks for itself. It is a waste of time.

Q You don't have any trouble understanding it?
A I understand the claim.

The only thing I don't understand is how he got his claim.

Q But you don't have any troubles with the description and what it is?
A No.
Q Do you think you could make a seat like that from

that description?
A I don't see why not. Anybody could, with any background, engineering background could.

MR. BENEVELD: I don't have any more questions.

MR. LYON: Okay. Let's take a couple of minutes then.

(Recess had)

EXAMINATION OF ROBERT EDWARDS

BY MR. LYON:

Q Prior to 1951, when you left Karpen, did Karpen ever make a seat for railroad cars that had a pedestal located intermediate to the wall and aisle?
A Yes; the Pennsylvania Railroad.
Q What was the specific construction of that seat?
A That was a casting that was in the floor of the car, mounted on the floor of the car, revolving chair.

The end structure was different but the framework was basically the same.

Q That seat was actually used on railroad cars?
A Used on the Pennsylvania Railroad.
Q And the pedestal itself was in a center position with respect to the overall seat?

Supreme Court, U. S.
FILED
APR 5 1979
MICHAEL RODAK, JR., CLERK

IN THE SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1978

NO. 78-1304

AMERICAN SEATING COMPANY,
Petitioner,
v.
NATIONAL SEATING COMPANY
Respondent.

PETITIONER'S EXPANDED APPENDIX

PRICE, HENEVELD, HUIZENGA & COOPER
Attorneys for Petitioner
By: Lloyd A. Heneveld
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Grand Rapids, Michigan 49501

BNA'S
PATENT, TRADEMARK & COPYRIGHT JOURNAL

In the

United States Court of Appeals

For the Seventh Circuit

No. 77-1872

REPUBLIC INDUSTRIES, INC.,

Plaintiff-Appellant,

v.

SCHLAGE LOCK COMPANY,

Defendant-Appellee.

Appeal from the United States District Court for the Southern District of Illinois, Peoria Division.
No. P Civ-76-17—Robert D. Morgan, *Judge.*

ARGUED JUNE 5, 1978—DECIDED FEBRUARY 1, 1979

Before SWYGERT, CUMMINGS, and PELL, *Circuit Judges.*

SWYGERT, *Circuit Judge.* Republic Industries, Inc., assignee and owner of the Slaybaugh patent, U.S. Patent No. 3,852,845, instituted this infringement action against Schlage Lock Company. Schlage counterclaimed, alleging invalidity of the patent and non-infringement. Without reaching the infringement issue, the district court in a thorough opinion held the Slaybaugh patent invalid for obviousness under 35 U.S.C. § 103 and entered judgment for defendant. *Republic Industries, Inc. v. Schlage Lock Co.*, 433 F. Supp. 656 (S.D. Ill. 1977). We affirm.

This appeal presents a recurrent problem: the proper criteria by which a combination patent is measured for nonobviousness. Increasingly, the districts courts in this circuit, not without some confusion emanating from this court, have taken the view that synergism and not the criteria articulated in *Graham v. John Deere Co.*, 383 U.S. 1 (1966), is the controlling test in combination patent claims.[1] Before addressing this question, we review the claims of the patent involved in this appeal.

I

The Slaybaugh patent comprises nine claims. Claims 1 through 7 of that patent were not placed in suit by Republic; only claims 8 and 9 are alleged to be infringed. Since Republic concedes that the validity of claim 9 is dependent upon the validity of claim 8, only the latter claim will be discussed.[2]

[1] *See, e.g., A. U. Dunmore Manufacturing Co. v. International Components Corp.* (No. 76 C 2131 (N.D. Ill., June 8, 1978); *Harag Products, Inc. v. K. O. Lee Co.*, 195 U.S.P.Q. 292 (N.D. Ill. 1977); *Saccharin v. Ace Patents Corporation*, 435 F. Supp. 298 (S.D. Ind. 1977); *Republic Industries, Inc. v. Schlage Lock Co.*, 433 F. Supp. 656 (S.D. Ill. 1977).

[2] Claim 9 simply provides: "The combination of claim 8 wherein said means for resiliently holding said valve are electrically operated."

The invention of Slaybaugh's claim 8 is a door closer used to hold open and to close fire doors in hospitals, institutional health care facilities, and other public buildings. Republic argues that the Slaybaugh device achieves a unique combination of two functions in a single unit: (1) multiple-point hold-open, whereby a door can be held open at any point along the arc between its closed and fully opened positions; and (2) momentary manual release, whereby a door in any open position becomes self-closing when a person momentarily pushes or pulls the door.[3] The Slaybaugh patent was the first device in the history of door closers which combined these two features.

As illustrated by the schematic diagram below, claim 8 of the Slaybaugh device is essentially comprised of seven elements, each of which Republic concedes to be old and known:[4]

(1) a door-closing main spring;

(2) a piston geared to the door and sliding within an enclosed cylinder, which is activated by the main spring;

(3) hydraulic fluid[5] in the cylinder ahead of (in the diagram, to the right side of) the piston;

(4) a fluid escape passage to the right of the piston;

(5) a dual area valve[6] which closes the fluid escape passage;

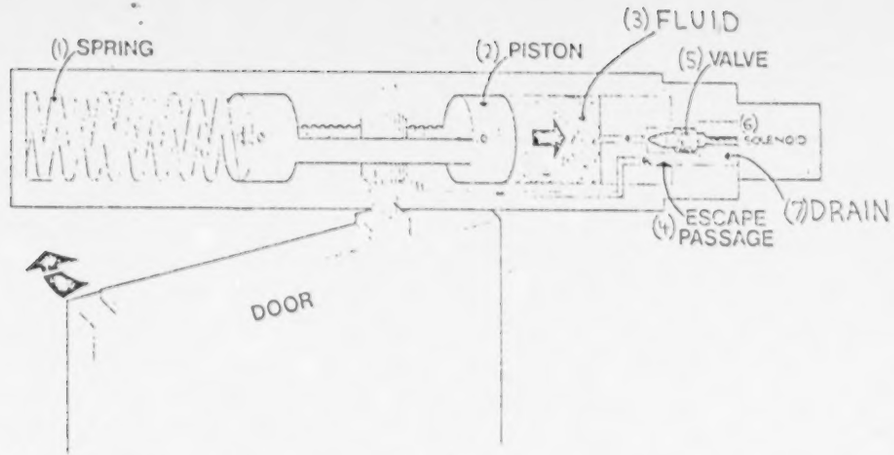
[3] The momentary manual release feature thereby differs from manual release in that the latter is not self-closing, requiring manual force to close the door completely. Although the manual release feature is often connected to an electric control circuit such as a smoke detector which, when activated, will close the door, the unique aspect of the momentary manual release feature Republic argues, is that the doors can be closed quickly and easily regardless of smoke detector operation, *e.g.*, when a detector might fail to operate.

[4] Claim 8 claims as invention

> A combined door check and door hold open device including resilient means for urging a door to and closing upon expansion thereof, means defining a hydraulic cylinder, a piston therein connected to move toward one end of said cylinder with the expansion of said resilient means, said resilient means establishing a pressure per unit area on fluid ahead of said piston, means associated with said one end of said cylinder defining a passage for the escape of fluid from said one end having a valve seat therein, a valve adapted to close against said valve seat from the downstream side thereof, said valve having a face larger than said valve seat, a valve chamber downstream of said seat, a portion of said valve downstream of said face closely contained in said chamber to substantially prevent fluid flow past said valve and allow a pressure drop across said valve when said valve is open, means providing a fluid escape passage into said valve chamber upstream of said valve face at any position of said valve, means providing a fluid escape passage from said valve chamber behind said closely contained portion of said valve when in said open position and means adapted to hold said valve resiliently against said seat with a force in excess of the product of said pressure and said valve seat area and less than the product of said pressure and said face area.

[5] Hydraulic fluid in a door closer is the liquid, typically oil, which flows within the door closer cylinder to provide door opening and closing speed control as well as to provide lubrication for the moving mechanical parts of the unit.

[6] A valve is a device in a passage that regulates fluid flow by opening or blocking the passage with a movable member. A dual area valve functions the same way, except that the valve has two faces, each a different size.



(6) a solenoid[7] which, by exerting a force on the valve, maintains the valve in a closed position overcoming the opposing force of the door-closing spring; and

(7) a drain behind the dual area valve to insure free valve movement, since accumulation of fluid behind the valve would block or interfere with valve movement.

In its commercial embodiment, Republic's unit, called *Fire Exc II MR*, is completely encapsulated.

As the door is opened to any desired position (the multiple-point hold-open feature), a gear mechanism attached to the door causes the piston in the diagram to move to the left, thereby compressing the closing spring. The electrically controlled solenoid exerts a force on the valve to close off the fluid escape passage, thus preventing the fluid interposed between the piston and valve from escaping. Even though the closing spring is urging the piston toward the right, movement of the piston is blocked because fluid cannot escape from its chamber through the fluid escape passage when the valve is closed. The door remains open as long as the equilibrium between the opposing forces of the spring and solenoid is maintained.

An open door may be closed either automatically or manually. The door is closed automatically by deactivation of the solenoid. The solenoid is connected to an external circuit which usually includes smoke or fire detectors. When the circuit is opened, *e.g.*, by the triggering of the smoke detector, the solenoid releases the force on the valve, thereby unseating it. Once the valve is open, the closing spring forces the piston rightward. The piston in turn forces the hydraulic fluid interposed between the piston and the valve[8] past the valve through the escape passage. The gear mechanism attached to the piston swings the door toward closure.

The allegedly unique feature of the Slaybaugh patent is the momentary manual release. Unlike prior door closers which required manual assistance,[9] the Slaybaugh device requires only a brief pull or push on the door, whereby the door closes by itself. The force of the momentary pull together with the force of the closing spring are sufficient to overcome the solenoid's effect and unseat the valve, which, when open, allows the door to close by itself.

II

Schlage contends that the Slaybaugh device is invalid because it is merely a combination of old elements having no synergistic effect. It takes this position regardless of whether a synergism test is defined in terms of a combination that produces an unexpected, unpredictable, or surprising result or in terms of individual elements of a combination functioning in a new and different manner. Although it is unclear whether Schlage understands synergism to be a substitute for or an addition to the statutory requirement of nonobviousness as interpreted in *Graham v. John Deere Co.*, 383 U.S. 1 (1966), it nonetheless argues that synergism is required by the *Anderson's Black Rock v. Pavement Co.*, 396 U.S. 57 (1969), and *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273 (1976), decisions. A review of these cases, particularly when placed in historical context, demonstrates otherwise.

The Patent Act of 1793 required that a device had to be both new and useful to be patentable. Act of February 21, 1793, ch. XI, § 1, 1 Stat. 318. Thereafter a third criterion was judicially created: a device had to be an "invention" as well.[10] Defining "invention" proved to be elusive. Nearly a century ago the Supreme Court said as much about the term:

> The truth is the word cannot be defined in such manner as to afford any substantial aid in determining whether a particular device involves an exercise of the inventive faculty or not. In a given case we may be able to say that there is present invention of a very high order. In another we see that there is lacking that impalpable something which distinguishes invention from simple mechanical skill. Courts adopting fixed principles as a guide, have by a process of exclusion determined that certain variations in old devices do or do not involve invention; but whether the variation relied upon in a particular case is anything more than ordinary mechanical skill is a question which cannot be answered by applying the test of any general definition.

McClain v. Ortmayer, 141 U.S. 419, 427 (1891). The imprecision of the "invention" standard resulted in an

[7] A solenoid is a device which uses electrical energy to create a magnetic field in a coil so that a movable core is drawn into the coil when a current flows. Here the solenoid is attached to the dual area valve.

[8] In the case of manual operation, the force of the manual pull on the door, transmitted through the gear mechanism, supplements the pre-existing force of the closing spring. The combined resultant force moves the piston rightward. This piston movement generates sufficiently high pressure in the fluid chamber to the right of the piston to overcome the force of the solenoid and unseat the valve.

[9] It is generally recognized that *Hotchkiss v. Greenwood*, 52 U.S. (11 How.) 248 (1851) is the earliest statement of the requirement of "invention."

inconsistent and unpredictable body of law because it required that the decision of patentability be based ultimately upon the subjective whims of the reviewing court.[11]

Congress revised the patent laws in 1952.[12] The novelty and utility requirements were maintained and recodified 35 U.S.C. §§ 101, 102. The retention of these requirements did not, however, completely define the concept of patentability; missing was that essential quality which goes beyond mere newness or usefulness—the "something" that the courts had unsuccessfully strived for by the use of the term "invention." In order to start afresh in a semantic sense and to promote uniformity in the application of the patent laws, Congress added section 103.[13] That provision replaced the judicially imposed requirement of "invention" with that of "nonobviousness":[14]

> A patent may not be obtained . . . if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

35 U.S.C. § 103.

Section 103 received its definitive interpretation in *Graham v. John Deere Co.*, 383 U.S. 1 (1956). There, the Court, in calling for "strict observance" of its requirements, laid out the analysis to be followed in cases involving the obviousness standard:

> While the ultimate question of patent validity is one of law [citation omitted], the § 103 condition, which is but one of three conditions, each of which must be satisfied, lends itself to several basic factual inquiries. Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved.

Id. at 17. It is against this backdrop that *Black Rock* and *Sakraida* must be read.

Black Rock involved a combination patent in which each of the elements were known in the prior art.[15] In that case the Court rested that it would adhere to the guidelines it had developed in *Graham*. 396 U.S. at 61-63. Using such analysis, the Court held the patent at issue invalid because "the combination was reasonably obvious to one with ordinary skill in the art." *Id.* at 60. Although during the course of its discussion the Court noted that a combination "may result" in a synergistic effect,[16] the Court went on to hold that the device in question "was not an invention by the obvious-not-obvious standard," *id.* at 63; this phrase could only refer to *Graham* and section 103.

Similarly in *Sakraida*, the Court scrutinized the combination patent in issue by considering the scope and content of the prior art together with the differences between that art and the claimed invention.[17] In holding the patent invalid, the Court held: "[T]his particular use of the assembly of old elements would be obvious to any person skilled in the art of mechanical application." 425 U.S. at 282. Although the Court again discussed synergism, it is apparent from the context of the opinion that the Supreme Court raised the topic only in response to the court of appeals' assertion that synergism was present; the Court simply did not agree that the effect produced by the claimed invention in that case was synergistic.[18]

Neither *Sakraida* nor *Black Rock* can be cited as prescribing some other, special test for the evaluation of combination claims. Nowhere in these two decisions did the Court hold a synergistic effect to be a necessary condition of patentability; nor did it hold that synergism supersedes a finding of nonobviousness under the *Graham* analysis. To the contrary, each case quoted *Graham* with approval. Each turned on whether the claimed invention was nonobvious on the basis of the three-pronged test in *Graham*. In short, we believe that *Sakraida* and *Black Rock*, rather than establishing an additional, different, or substituted test for nonobviousness under section 103, reaffirmed the continuing vitality of *Graham*.[19]

The district court, while agreeing that *Black Rock* and *Sakraida* did not establish synergism as a requisite to patentability, nonetheless interpreted cases from this court as requiring that every combination invention must have a synergistic effect to be patentable.

The synergism test necessarily involves a two-pronged hypothesis: (1) the subject matter of the patent claim comprises a combination of several elements, each of which are known in the prior pertinent art, and (2) the combination is synergistic or at least produces a synergistic "effect." One premise of this hypothesis, at least as applied to mechanical or hydraulic devices, is that all such inventions are merely new applications of known elements and materials in different combinations. As Judge Learned Hand observed:

> It is idle to say that combinations of old elements cannot be inventions; substantially every invention is for such a "combination" that is to say, it consists of former elements in a new assemblage.

Reiner v. I. Leon Co., 285 F.2d 501, 503 (2d Cir. 1960), *cert. denied*, 366 U.S. 929 (1961).[20] If this be true (and if new nonobvious combinations are not patentable), then almost nothing would be patentable. *See Reeves Instrument Corp. v. Beckman Instruments, Inc.*, 444 F.2d 263, 270 (9th Cir.), *cert. denied*, 404 U.S. 951 (1971).

Once it has been determined that all of the elements in the combination are known, the next inquiry under the synergism approach is whether the claimed patent is synergistic or produces a synergistic effect. This has been no easy task. Courts have long wrestled with the meaning of synergism and have formulated a number of definitions. The two most common have been that one of the elements functions differently in combination than it did previously (*e.g., Barbour v. Trippe Manufacturing Co.*, 543 F.2d 588, 592 (7th Cir. 1976), and that the combination results in an effect greater than the sum of the several parts taken separately (*e.g., St. Regis Paper Co. v. Bemis Co.*, 549 F.2d 833, 838 (7th Cir.), *cert. denied*, 431 U.S. 933 (1977)).[21] A realistic appraisal of these formulations, however, reveals that synergism is only a figure of speech, for in its literal sense synergism never has existed and never can exist in mechanical or hydraulic inventions when the term is defined as a whole result greater than the sum of its constituent parts.[22]

There is, in fact, no such thing as a mechanical or hydraulic element functioning differently in combination than it did outside the combination. A spring or valve will always function as a spring or valve, alone or in concert with other components.[23] Moreover, mechanical elements can do no more than contribute to the combination the mechanical functions of which they are inherently capable. *See Application of Mennuge*, 323 F.2d 1011, 1015 (C.C.P.A. 1963). Thus, the overall performance of the combination is always equal to the sum of the functions of the individual components. As Judge William Conner of the Southern District of New York observed: "In the real world, 2 and 2 never equals five." *Some Hurtful Errors in Reasoning as to Patents*, 5 Am. Pat. L.Q.J. 77, 85 (1977). *Compare Gen. Am. Transp. Co. v. Sup-Seam Int'l Corp.*, 239 U.S. 117, 132 (1960) ("Two and two have been added together and they still make only four.").

A definition of synergism that reflects its etymon is that the elements in the combination must cooperate or interact with each other.[24] So defined, synergism distinguishes those inventions in which the parts are merely aggregated,[25] and those in which the parts coact with each other so that the result comes from the combined effort of the several parts and not simply from the separate action of each. Under this formulation, the presence or absence of synergism, as above defined, proves little. Today, almost all mechanical devices consist of parts which interact with each other. This interaction has little, if anything, to do with the required nonobviousness of the claimed invention. Although the absence of interaction may demonstrate the obviousness of the combination, the presence of interaction assuredly does not impart nonobviousness to a device clearly suggested by the prior art. As defined, synergism simply has no bearing on the search for a useful yardstick with which to measure patentability.

Putting the definitional aspects aside, there are more fundamental flaws in the use of synergism as a standard for patentability. In enacting section 103, Congress expressly mandated nonobviousness, not synergism, as the sole test for the patentability of novel and useful inventions. Indeed, synergism is not even mentioned in the Patent Act of 1952. Moreover, as section 103 applies to all patent claims, there is no justification why patentability of a combination patent should be measured by a different standard than any other type of invention.

More importantly, when using the synergism approach to determine whether one element functions differently or whether the whole somehow exceeds the parts, one is required to look solely to the operation of the elements after they are combined. This analysis suffers from two defects. First, a test which looks exclusively to the functioning of the individual elements after they are combined must necessarily be premised on the assumption that it is always obvious to take known elements and combine them. We find this assumption unsound and not based in fact. It may be that in certain circumstances the very choice of the elements to be selected is not obvious. Again, as Judge Hand noted:

> All machines are made up of the same elements: rod, pawl, pitman, journal, bearing, gears, cams, and the like; all actuate their parts in the same ways and always must. All combinations are made of the same substances, retaining their bond chemical properties. But the elements are capable of an infinity of permutations and the selection of that group which proves serviceable for a given need may require a high degree of originality. *It is not all of selection which is the creative act.*

B.G. Corp. v. Walker Bold. & Co., 29 F.2d 1, 2 (2d Cir. 1928), *quoted with approval in Application of Mennuge*, 323 F.2d 1011, 1015 (C.C.P.A. 1963).

The second and more basic defect with synergism is that section 103 sets as the standard of patentability the nonobviousness of the invention "as a whole" in view of the invention.

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[11] In this regard, Judge Rich, one of the coauthors of section 103, stated:

> In the final analysis, all it amounted to was that if the court thought the invention, though new and useful, was not patentable then it did not involve "invention" and vice-versa. The requirement for "invention" was the plaything of the judges who, as they became initiated into its mysteries, delighted to devise and expound their own ideas of what it meant; some very lovely prose resulting. *Principles of Patentability*, 28 Geo. Wash. L. Rev. 393, 401 (1960).

[12] Patent Act of 1952, ch. 950, 66 Stat. 798, *codified in* 35 U.S.C. §§ 101 *et seq.*

[13] The Reviser's note to section 103 provides:

> There is no provision corresponding to the first sentence explicitly stated in the present statutes but the refusal of patents by the Patent Office, and the holding of patents invalid by the courts, on the ground of lack of invention or lack of patentable novelty has been followed since at least as early as 1850. This paragraph is added with the view that an explicit statement in the statute may have some stabilizing effect, and also to serve as a basis for the addition at a later time of some criteria which may be worked out.

See also H.R. Rep. No. 1923, 82d Cong., 2d Sess. 7 (1952), quoted in *Graham*, *supra*, 383 U.S. at 15.

[14] Under the 1952 Act, the word "invention" was statutorily defined as any "invention or discovery." 35 U.S.C. § 100(a). Thus, an invention which is novel, useful and nonobvious is a patentable invention, a device which is lacking one or more of the criteria is an unpatentable invention.

[15] The claimed invention in *Black Rock* was the placement of a radiant heat burner in a lubricating mixing machine, and an asphalt shaper apparatus in one entirety. All three elements were old in the paving art. The alleged contribution was the combining of the three elements into a single paving machine.

[16] The extent of the Court's discussion of synergism was limited to two sentences. "A combination of elements may result in an effect greater than the sum of the several effects taken together. No such synergistic result is argued here." 396 U.S. at 61.

[17] The patent in *Sakraida*, a device designed to remove animal wastes from a dairy barn, involved the combination of a grooved floor, flush troughs, and a means for storing water for a flush effect release into the barn floor.

[18] The Fifth Circuit in *Sakraida* had held that the invention in issue "[did] achieve such synergistic result." 474 F.2d 167, 173 (5th Cir. 1973). To this conclusion the Supreme Court responded: "We cannot agree that the combination of these old elements . . . can properly be characterized as synergistic . . . ." 425 U.S. at 282. It is thus apparent that the reference to synergism arises not as a statement of an affirmative requirement of patentability, but rather as a rejection of the Fifth Circuit's holding.

[19] We believe our view is supported by the Court's action in *Dann v. Johnston*, 425 U.S. 219 (1976), decided just three weeks before *Sakraida*. In *Dann*, the briefs of the petitioner and one of the amici argued that synergism is essential for patentability and that the patent in issue was not synergistic. *See* Brief of Petitioner at 28; Brief of Amici Curiae for the Computer & Business Equipment Manufacturers Assn. at 9. Importantly, the Court did not discuss nor did it even mention synergism. Instead, the claimed patent in that case was evaluated exclusively under the *Graham* pattern of analysis. 425 U.S. at 226-30.

[20] *See also Safety Car Heating & Lighting Co. v. General Electric Co.*, 155 F.2d 937, 939 (2d Cir. 1946); *Eaton Gearless Coal Co. v. Copland Enterprises Corp.*, 85 F.2d 537, 541 (2d Cir. 1936), *cert. denied*, 300 U.S. 665 (1937).

[21] Other definitions have included the elements must take on a surprising quality, *Gilbreath Manufacturing, Inc. v. Lewis 'N' Spot*, 517 F.2d 1191, 1199 (5th Cir. 1975), the combination must produce a result other than the anticipated sum of the separate parts, *L.A. Industries, Inc. v. Blackmer Corp.*, 353 F.2d 636, 641 (5th Cir. 1965), *cert. denied*, 429 U.S. 870 (1976), the elements must, in the aggregate, produce new, unusual or striking results, *Parallel Corp. v. Borg & Corp.*, 517 F.2d 525, 529 (6th Cir.), *cert. denied*, 423 U.S. 987 (1975), the results must be unachieved by prior art structures, *Bros v. Elkhart Welding & Boiler Works, Inc.*, 411 F.2d 517, 526 (7th Cir. 1971).

[22] At best in one has or sense, no result is actually greater than the sum of its parts. To the extent that new combinations of elements appear synergistic, it is a function of our imperfect knowledge of the properties of the parts. If one could truly get more out of a combination than was put into it, it would amount to a creation of something out of nothing and would contravene the basic laws of nature as we understand them. If these laws remain valid, the appearance of synergism merely indicates poor grounds for creation, by ignorance or lack of knowledge, of however, but part of the question of obviousness. Thus, at best, the appearance of synergism is subsumed within the question of nonobviousness under section 103 and the *Graham* criteria.

[23] Assuming *arguendo* that there exists an exception, the new function should nevertheless not be seen per se to be a finding of patentability, but merely be taken as evidence to be considered along with other evidence available in the obvious-nonobvious inquiry.

[24] The term synergism derives from the Greek *syn*, together and *ergon*, work, to work together, cooperate. The Oxford English Dictionary, Corrected Impression 1971. *See* Rich, *Laying the Ghost of the "Invention" Requirement*, 1 Am. Pat. L.Q.J. 26, 43-44 (1972).

[25] The classic example of aggregation is matter, lead pencil and rubber eraser. *See Reckendorfer v. Faber*, 92 U.S. 347 (1876).

tion was made to a person having ordinary skill in the art . . . ." This provision therefore compels the court to view the invention from the vantage point of the field of art at a specific point in time, *i.e.*, the time the invention was made. *See* Rich, *Principles of Patentability*, 28 Geo. Wash. L. Rev. 393, 405-06 (1960). From this vantage point the critical question becomes whether the level of skill in the art was such that the combining of the elements in the manner claimed would have been obvious, not in retrospect, but at the time it was done by the inventor. As the Supreme Court stated in *United States v. Adams*, 383 U.S. 39, 50 (1966), a companion case to *Graham*:

> It begs the questions . . . to state merely that magnesium and cuprous chloride were individually known battery components. If such a combination is novel, the issue is whether bringing them together as taught by [the inventor] was obvious in the light of the prior art.

Synergism, however, precludes this analysis. Because synergism centers exclusively on the performance of the elements *after* combination and without regard to the obviousness or nonobviousness of *making the combination*, synergism does not comport with the *Graham* mandate to apply section 103.

Regrettably, we have heretofore failed to provide clear and consistent guidance regarding the standards appropriate for combination patents. Although we have in fact continued, either explicitly or implicitly, to judge patent validity according to the *Graham* analysis, we have also from time to time commented on the presence or absence of a requirement akin to synergism in the claimed invention under review. And in *St. Regis*, we stated our conclusion in such a way that it may seem that we regard synergism as a test separate from and coequal to that for nonobviousness under section 103. Inasmuch as *Graham* and section 103 continued to be the guiding light, the results of those cases were not in error. But as the foregoing discussion makes evident, this court never intended that synergism be applied literally or that synergism is the *sine qua non* of patentability. Rather, the concept was employed only as a figure of speech to express the truism that when all the parts of a claimed invention are known, the combination (and the act of combining) is likely to be more obvious to one reasonably skilled in the art.[5] *See Reeves Instrument Corp. v. Beckman Instruments, Inc.*, 444 F.2d 263, 271 (9th Cir.), *cert. denied*, 404 U.S. 951 (1971). However, because synergism has prevented the development of a consistent, predictable body of law under section 103, and because the concept does not bear any logical *open facto* relationship to obviousness, the term has little, if any, utility. Therefore until Congress shall otherwise legislate or the Supreme Court shall otherwise specifically hold, this court will continue to apply the *Graham* analysis as the exclusive means by which to measure nonobviousness under section 103.

Perhaps a *caveat* is in order by our holding today we have no intention of departing from the high standard of patentability which is reflected in the *Hotchkiss* and *Sakraida* decisions. Though rendered nearly a century apart, the Supreme Court's discussion in *Atlantic Works v. Brady*, 107 U.S. 192, 200 (1883), of the purpose behind the patent laws remains true today:

> The design of the patent laws is to reward those who make some substantial discovery or invention, which adds to our knowledge and makes a step in advance in the useful arts. Such inventors are worthy of all favor. It was never the object of those laws to grant a monopoly for every trifling device, every shadow of a shade of an idea, which would naturally and spontaneously occur to any skilled mechanic or operator in the ordinary progress of manufactures. Such an indiscriminate creation of exclusive privileges tends rather to obstruct than to stimulate invention. It creates a class of speculative schemers who make it their business to watch the advancing wave of improvement, and gather its foam in the form of patented monopolies, which enable them to lay a heavy tax upon the industry of the country, without contributing anything to the real advancement of the arts. It embarrasses the honest pursuit of business with fears and apprehensions of concealed liens and unknown liabilities of lawsuits and vexatious accountings for profits made in good faith.

[5] The Supreme Court has expressed this idea in similar terms: "Courts should scrutinize combination patent claims with a care proportioned to the difficulty and improbability of finding [a patentable] invention in an assembly of old elements. . . ." *Great A & P Tea Co. v. Supermarket Corp.*, 340 U.S. 147, 152 (1950); *Accord, Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 281 (1976).

III

Having thus disposed of the synergism issue, we are left with the question of the instant patent's validity. We begin this analysis by noting that a patent is presumed valid. 35 U.S.C. § 282. That presumption, however, is not conclusive. *St. Regis Paper Co. v. Bemis Co.*, 549 F.2d 833, 838 (7th Cir.), *cert. denied*, 431 U.S. 933 (1977); it merely shifts the burden of proof to the party attacking the validity of the patent. *Mason Pioneer Barrier Co. v. Eclipse Fuel Engineering Co.*, 471 F.2d 308, 312 (7th Cir. 1972), *cert. denied*, 410 U.S. 929 (1973). Furthermore, that presumption does not exist against evidence of prior art not before the Patent Office. *The Allen Group v. NuStar, Inc.*, 575 F.2d 146 (7th Cir. 1978) (per curiam); *Rapat Corp. v. McGraw Edison Co.*, 535 F.2d 378, 383 (7th Cir. 1976). "Evidence prior art reference not considered by the Patent Office can suffice to overthrow the presumption." *Heyer Manufacturing Co. v. Commercial Filters Corp.*, 480 F.2d 1008, 1013 (7th Cir. 1973). Observing these considerations, we now evaluate the Slaybaugh patent to determine whether it is obvious under the *Graham* criteria.

The parties agree, and the district court found, that the Martin patent, U.S. Patent No. 3,626,962, is pertinent prior art relating to the Slaybaugh invention. The Martin patent, also owned by Republic, describes a hydraulic door closer with multiple point holdopen but without momentary manual release. The innovative feature of the Martin device was the introduction of an electrically controlled valve in the escape passage of the hydraulic fluid which, when energized by a solenoid, blocked passage of the fluid, thereby preventing further movement of the piston in the closing direction.[6] Use of the solenoid-operated hold-open valve in this manner had two distinct effects: (1) an open door would close automatically at a controlled rate when the solenoid valve circuit was interrupted, *e.g.*, by triggering of a smoke detector;[7] and (2) the continuing force of the solenoid on the valve made it possible for the door to have a multiple point hold-open feature. Because of the addition of the valve-solenoid structure, the Martin patent was the first device in the door closer art which had a multiple point hold open feature and which could be closed automatically.[8]

The Slaybaugh patent is similar in construction and operation to the Martin device in many respects. Like Martin, Slaybaugh employs a piston and a cooperating cylinder filled with hydraulic fluid. Like Martin, Slaybaugh also uses an electronically operated solenoid

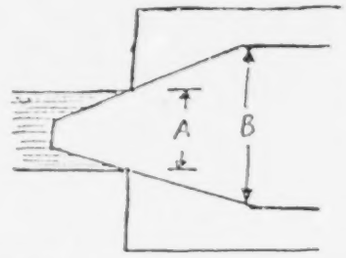
[6] Martin was not the first patent to use a solenoid-operated control valve. Earlier patents, however, used the solenoid to assist fluid pressure in sealing the valve rather than to oppose the pressure. *See, e.g.*, Rice U.S. Patent No. 2,201,105; Koch U.S. Patent No. 1,884,957.

[7] The Martin patent was directed toward satisfying the industry's need for a door hold-open device which could close automatically if fire or smoke were detected.

[8] As with prior door closers, the Martin device could also be closed manually, but the door had to be pushed or pulled continuously all the way toward closure.

hold-open valve apparatus. As a result, it too has the multiple point hold-open and automatic closing features. The distinctive and, in Republic's view, the innovative feature of the Slaybaugh device is the addition of momentary manual release to the door closer art.

Republic argues that Slaybaugh's contribution to the art—momentary manual release—was achieved by adding components to the Martin patent and by proportioning key elements. The crux of Slaybaugh's improvement over Martin and the principal difference which allows momentary manual release is the employment of a dual area valve. As illustrated in the diagram below, a dual area valve is constructed with a face area (B) which is larger than the area of its seat when the valve is closed (A).[9]



Once the valve is opened by the combined force of the closing spring and the momentary push, the fluid pressure acts on a larger face area than it did when the valve was closed. Since force is the product of pressure times area, the high pressure fluid acting on the entire projected valve face area, exposed when the valve is open, develops a force sufficient to overpower the opposing force exerted on the valve by the solenoid. Because the solenoid is overpowered, the valve stays open until the fluid escapes and the door closes by itself, without additional manual assistance.[10]

The Martin patent, however, is not the only pertinent prior art. Other patents, which Republic failed to disclose to the Patent Office, teach the concept of dual area valves.[11] Because Republic did not disclose these, the presumption of validity does not obtain for the Slaybaugh patent against this evidence of prior art. *The Allen Group, Inc. v. NuStar, Inc., supra*; *Rapat Corp. v. McGraw Edison Co., supra*.[12]

[9] This diagram is, of course, but a two-dimensional representation of the conical structure in the Slaybaugh device.

[10] The principle of dual area valves is illustrated by the following example: If the area of the valve seat (A) is 0.5 square inch and a force (exerted by a solenoid, for example) of 250 pounds is sufficient to keep the valve closed, the valve will crack open when the hydraulic pressure exceeds 500 pounds per square inch (PSI) since 500 PSI times 0.5 square inch equal 250 pounds of force. Once the valve has cracked open, however, the 500 PSI fluid is exposed to the larger area of the valve face (B), 1.0 square inch, for example. 500 PSI times 1.00 square inch equal 500 pounds of force then holding the valve open (an amount far in excess of the 250 pound force attempting to close the valve). Accordingly, fluid flows out of the valve seat past the valve until the hydraulic pressure drops from 500 PSI to 250 PSI. Until that time the valve remains open, allowing the fluid to escape and thereby closing the door.

[11] *See, e.g.*, Prpatel et al., U.S. Patent No. 2,980,132; Parker, U.S. Patent No. 2,841,760; Hubbard, U.S. Patent No. 3,117,321.

[12] Republic argues that Martin, in using a ball valve, also had a dual area valve construction. As a result, Republic contends that the Martin patent is more pertinent prior art than Prpatel, et al., because Martin is in the door holder closer art. In effect, Republic argues that Martin contains the same dual area valve construction and function that Prpatel, et al. did.

The fact is that most valves do have larger valve face areas than valve seat areas. But such valves, including the ball valve employed by Martin, do not *coincidentally* proportion the valve seat area, the valve face area, and the valve biasing force. The Martin patent simply does not teach such a valve intentionally proportioned to open at a predetermined high pressure and then stay open to permit final escape until the pressure effect on the valve face drops to a predetermined lower pressure.

[13] *See* note 31 *supra*.

[14] Republic argues that the prior art dual area valves are "design" valves, while the valve used in the Slaybaugh device is not. Although certain prior art valves were used as drain valves, *see, e.g.*, Hubbard, others were not designed merely to dump all the fluid out of a chamber but rather to accept fluid flowing out of a chamber until the pressure in the chamber dropped below a predetermined level. *See, e.g.*, Prpatel, et al., Parker.

[15] During the prosecution of the patent, the Patent Office cited several patents for their valve disclosures. Six patents cited in note 26 *supra*. None of these patents are in the door closer art. Interestingly, Slaybaugh did not argue that these patents were nonanalogous. Rather Slaybaugh argued that the valves were not the same because they did not appear that pressure from the surface of the valve seat and did not have area relationships wherein they would open at a predetermined high pressure and, subsequently, remain open when that pressure dropped to a predetermined lower pressure.

would be obvious to a layman. *Id.* at 229. *See also Graham, supra*, 383 U.S. at 327. And obviousness is measured not by considering what was obvious to actual artisans but by considering whether a hypothetical person, having all of the prior art at hand, would have found the same solution when addressing himself to the same problem. *Popeil Brothers, Inc. v. Schick Electric, Inc.*, 494 F.2d 162, 167 (7th Cir. 1974); *see Systematic Tool & Machine Co. v. Walter Kidde & Co., Inc.*, 555 F.2d 342, 348 n.8 (3d Cir.), *cert. denied*, 434 U.S. 857 (1977); *Malsbary Manufacturing Co. v. Ald, Inc.*, 447 F.2d 809, 813 (7th Cir. 1971) (Stevens, J., dissenting). The district court found, and we agree, that such a hypothetical person in the door closer art would have knowledge of basic hydraulics. This knowledge would have included safety and pressure relief valves which teach use of the dual area concept to keep a valve open after the initial pressure is reduced.[8]

Even with this awareness, Republic argues that Slaybaugh advanced the art because of his proportioning of the force of the main spring, the valve seat area, the projected valve face area, and the counterforce of the solenoid. This, however, amounted to little more than the mathematical task of filling in the variables of a given equation. We find this proportioning simply to be "the work of a skillful mechanic, not that of the inventor." *Hotchkiss v. Greenwood*, 52 U.S. (11 How.) 248, 267 (1851).

Republic strenuously argues that we should weigh such secondary considerations as commercial success, long felt need, and failure of others. *See Graham, supra*, 383 U.S. at 17-18. Even assuming the presence of these factors in this case—of which we have some doubt—we decline this invitation. While such secondary considerations may be "indicia of obviousness or nonobviousness," *id.* at 18, "these matters without invention will not make patentability." *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57, 60 (1969). Only in a close case, in which application of the primary criteria of nonobviousness under section 103 does not produce a firm conclusion, can these secondary considerations be used to "tip the scales in favor of patentability." *Vandenberg Corp. v. Burndy Corp.*, 517 F.2d 535, 541 (7th Cir.), *cert. denied*, 423 U.S. 987 (1975). Because we hold that the claims made here are clearly obvious under section 103, we deem it unnecessary to examine these secondary considerations.

The judgment of the district court is affirmed.

A true Copy:

Teste:

Clerk of the United States Court of Appeals for the Seventh Circuit

[8] Slaybaugh himself admitted in a deposition that he was familiar with relief valves of the type disclosed by Prigatel, et al. Defendant's Trial Exhibit No. 38 at 153.

-- End of Section D --

United States Court of Appeals

FOR THE EIGHTH CIRCUIT

No. 78-1341
No. 78-1301

Reinke Manufacturing Company, Inc.,	*	
Appellant-Cross-Appellee,	*	Appeal from the United States District Court for the District of Nebraska
v.	*	
Sidney Manufacturing Corporation,	*	
Appellee-Cross-Appellant.	*	

Submitted: November 15, 1978
Filed: February 26, 1979

Before STEPHENSON, HENLEY and McMILLIAN, Circuit Judges.

STEPHENSON, Circuit Judge.

This case involves two patents, No. 3608826 ('826) and No. 3750953 ('953), on a circular irrigation system known as the Electrogator. Plaintiff-appellant Reinke Manufacturing Company, the assignee of the patents, primarily appeals from the trial court's[1] determination that the patents are invalid for reasons of obviousness. Defendant-appellee Sidney Manufacturing Corporation, the alleged infringor of the patents, primarily cross-appeals from the trial court's determination

[1] The Honorable Robert F. Denney, United States District Judge for the District of Nebraska.

that, if the patents are valid, Sidney infringed the claims of the patents in question.[2]

Because we affirm the district court's finding that the patents are invalid for reasons of obviousness under 35 U.S.C. § 103,[3] it is not necessary to consider the issue of infringement. There can be no infringement of an invalid patent. Greening Nursery Co. v. J & R Tool & Mfg. Co., 376 F.2d 738, 742 (8th Cir. 1967).

The Supreme Court set out the section 103 standard in Graham v. John Deere Co., 383 U.S. 1, 17-18 (1966):

> While the ultimate question of patent validity is one of law, * * * the § 103 condition, which is but one of three conditions, each of which must be satisfied,[4] lends itself to several basic factual inquiries. Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. As indicia of obviousness or nonobviousness, these inquiries may have relevancy. * * *
>
> This is not to say, however, that there will not be difficulties in applying the nonobviousness test. What is obvious is not a question upon which there is likely to be uniformity of thought in every given factual context. The difficulties, however, are comparable to those encountered daily by the courts in such frames of reference as negligence and scienter, and should be amenable to a case-by-case development. We believe that strict observance of the requirements laid down here will result in that uniformity and definiteness which Congress called for in the 1952 Act.

While a presumption of validity is accorded to patents that have "survived the scrutiny of the Patent Office," Woodstream Corp. v. Herter's, Inc., 446 F.2d 1143, 1149 (8th Cir. 1971), and while the primary responsibility for initially making determinations inherent in approving patents lies with the Patent Office, the reviewing court has the responsibility of applying the strict and invariable standard of section 103 as mandated by the Supreme Court in Graham v. John Deere Co., supra, 383 U.S. at 17-19.

In applying section 103, it is important to keep in mind that the test is not whether the object is an improvement in the art; it is not whether the object works better; "an improvement which is obvious to those skilled in the art is not entitled to protection." Airlite Plastics Co. v. Plastilite Corp., 526 F.2d 1078, 1082 (8th Cir. 1975), cert. denied, 425 U.S. 938 (1976).

The district court's factual discussion of the Reinke

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[2] Sidney also raises several other issues, but in light of our holding, a discussion of those is not necessary.

[3] 35 U.S.C. § 103 provides:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

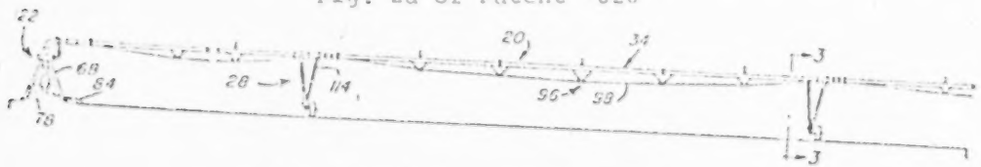
[4] In addition to being nonobvious, an invention must also be useful and novel in order to be patentable. 35 U.S.C. §§ 102, 103; Clark Equip. Co. v. Keller, 570 F.2d 778, 785 (8th Cir. 1978), cert. denied, 47 U.S.L.W. 3222 (Oct. 3, 1978, No. 77-1640).

patents provides an excellent understanding of the subject matter:

> The subject of the Reinke patents is an electrically driven circular irrigation system in which the water pipe carrying sprinkler heads serves as part of a traveling sectional boom. One end of the boom is connected to a stand assembly positioned in the center of a square area to be irrigated. The boom moves in a circular path around the stand assembly. Such machines are generally known as center pivot irrigation systems, because the boom carrying the sprinkler heads travels around the central stand or pivot location containing the water supply pipe.
>
> In the Reinke patents, the boom is propelled in a circular path by electrically driven wheeled towers, i.e., "drive units," spaced at intervals. The wheel assemblies also provide support so that the boom is maintained in a straight line as it rotates. The boom itself consists of the water pipe and a supporting truss assembly underneath and interconnected with the water pipe.
>
> Generally, the truss is constructed as follows[:] * * * The water pipe forms the top chord of the truss, and the bottom or tension chord is formed by cables or tie rods. On either side of the water pipe, brace chords in the shape of a "V," attached to the pipe at the upper ends of the V, extend downward with the apex of each V connected to a bottom or tension chord. The V braces form the web members of the truss. A transversely extending brace, or connector bar, is attached to the apices of the V's at the points where the apices are fixed to the bottom or tension chords.

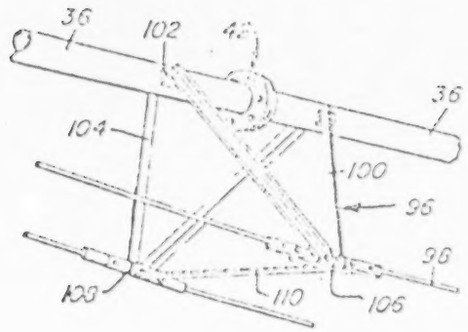
Reinke Mfg. Co. v. Sidney Mfg. Corp., 446 F. Supp. 1056, 1060 (D. Neb. 1978).

Fig. 2a of Patent '826



Side Sketch of Electrogator

Fig. 14 of Patent '826



Close-up Sketch of Truss Section of Electrogator

The dispute in this case centers around claims 4 and 11 of the '826 patent, and claims 1, 3, 4 and 5 of the '953 patent,[5] which primarily describe the truss which supports the water pipe and the attaching devices used in conjunction with the truss.

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[5]The claims provide in pertinent part:

The '826 patent:

> 4. An irrigation apparatus comprising an elongated pipe[,] * * * said elongated pipe including a truss structure disposed along the undersurface thereof between the wheeled means, said structure including a plurality of pairs of V-shaped braces having the upper ends connected to the pipe in longitudinally spaced relation with the braces in each pair depending downwardly in converging relation to each other and in diverging relation to the braces in an opposed pair, means interconnecting the apices of the pairs of braces to retain them rigidly in spaced-apart relation, and tension rods connected longitudinally of the apices of the braces along each side of the pipe with the ends thereof being connected to the pipe at the end of each section thereof thereby rigidifying and supporting the pipe.
>
> 11. * * * that improvement comprising a

The district court stated the issue as follows:

Center pivot irrigation equipment is subject

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supporting truss structure for the pipe including a plurality of longitudinally spaced brace assemblies fixed to said pipe and depending therefrom, each brace assembly including a pair of opposed brace members of V-shaped configuration having the upper ends thereof attached to the pipe and depending in diverging relation, means retaining the lower apices of opposed pairs of brace members in spaced relation, and tension members connected to the apices of said brace members and extending and attached to the pipe at remote points for rigidifying the pipe and forming a truss support therefor.

The '953 patent:

1. * * * that improvement comprising a supporting truss structure for the pipe including a plurality of longitudinally spaced brace assemblies fixed to said pipe and depending therefrom, each brace assembly including a pair of opposed brace members of V-shaped configuration having the upper ends thereof attached to the pipe and depending in diverging relation, means retaining the lower apices of opposed pairs of brace members in spaced relation, and tension members connected to the apices of the brace members and extending and attached to the pipe at remote points for rigidifying the pipe and forming a truss support therefor, said pipe being sectional with the sections being joined by abutting end flanges, said tension members being attached to the pipe by extending through and being secured to a pair of abutting flanges.

3. * * * that improvement comprising a supporting truss structure for the pipe including a plurality of longitudinally spaced brace assemblies fixed to said pipe and depending therefrom, each brace assembly including a pair of opposed brace members of V-shaped configuration having the upper ends thereof attached to the pipe and depending in diverging relation, means retaining the lower apices of opposed pairs of brace members in spaced relation, and tension members connected to the apices of the brace members and extending and attached to the pipe at remote points for rigidifying the pipe and

to a variety of loads and stresses, such as the weight of its own structure, natural forces such as wind, stresses arising from the dynamics of travel over rough terrain, uneven loads as water passes through the pipe. All such machines, therefore, must include features to maintain the pipe in alignment and avoid breakage or collapse of the pipe spans and drive units.

Mr. Reinke asserts * * * that his truss structure prevents or withstands "wallowing" or "whipping" under such stresses by the "manner in which the braces and pipe are arranged and interconnected with each other and the tying rods [which] produces an interaction which rigidifies the assembly." Defendant contends that even if the Reinke V-brace configuration withstands loads and stresses more effectively than truss structures previously used on pivot sprinklers, the Reinke trussed pipe represents an obvious extension of the prior art.

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forming a truss support therefor, the upper ends of the brace members being secured to angular clips rigidly affixed to the exterior surface of the pipe.

4. * * * a supporting truss structure for the pipe including a plurality of longitudinally spaced brace assemblies fixed to said pipe and depending therefrom, each brace assembly including a pair of opposed brace members having the upper ends thereof attached to the pipe and depending in diverging relation, means retaining the lower ends of opposed pairs of brace members in spaced relation, and tension members connected to the lower ends of the brace members and extending and attached to the pipe at remote points for rigidifying the pipe and forming a truss support therefor, the upper ends of the brace members being secured to clips rigidly affixed to the exterior surface of the pipe, said tension members being attached to the pipe by being secured to flanges on the pipe.

5. The structure as defined in claim 4 wherein said pipe is sectional with the sections being joined by abutting end flanges, said tension members extending through and being secured to a pair of abutting end flanges, each of said opposed brace members including two depending members defining a substantially V-shaped configuration having their lower end portions connected with each other and the tension members being connected with the lower end portions of the brace members.

Reinke Mfg. Co. v. Sidney Mfg. Corp., supra, 446 F. Supp. at 1068 (footnote omitted).

As the district court noted, the patents in question are combination patents and "[c]ourts should scrutinize combination patent claims with a care proportioned to the difficulty and improbability of finding invention in an assembly of old elements. . . . A patent for a combination which only unites old elements with no change in their respective functions . . . obviously withdraws what already is known into the field of its monopoly and diminishes the resources available to skillful men . . . ." Sakraida v. Ag Pro, Inc., 425 U.S. 273, 281 (1976), quoting from Great A. & P. Tea Co. v. Supermarket Equip. Corp., 340 U.S. 147, 152-53 (1950). Thus, if the claims cover a structure that combines old and well known elements, one of the factors this court must look for in determining whether the patents meet section 103 requirements is synergism: that which results "in an effect greater than the sum of the several effects taken separately." Anderson's-Black Rock, Inc. v. Pavement Salvage Co., 396 U.S. 57, 61 (1969).

In our examination we will not only consider whether it was obvious that by putting together the various elements used the result would be the effect achieved in the Electrogator; we will also consider whether the effect is a new effect, or simply each of the items performing its expected function.

As directed by Graham, we shall examine the prior art, the differences between the prior art and the claims in issue, and the level of ordinary skill in the art.

A. Prior Art

Initially we note that principles of truss design are

long known to the structural arts of bridge, roof and related designs. A truss is essentially a structure consisting of straight pieces joined to form a series of triangles in a single plane. Continuous triangles may also be built into more than one plane, in which case the truss will have stability in each plane in which triangular support is found.

"Shear" consists of forces acting along a planar surface. If the shear load is more than the material can stand, it will fracture along the plane where the shear load is too great. Under tension, molecules spread or expand. Under compression, they compress. In a truss, members of the triangle resist by tension the tendency of other members to compress, and vice versa.

In general, the truss is based upon the geometric principle that the shape of a triangle cannot be deformed without altering the length of its sides, i.e., the sides of a triangle cannot move with respect to each other. The web members of a truss, the diagonal and vertical elements, assuming adequate connection features, maintain stability between the horizontal upper and lower chords of the truss. Therefore, as the triangle is the most stable planar configuration, the more planes into which triangulation is introduced, the greater the stability of the structure.[6]

Reinke Mfg. Co. v. Sidney Mfg. Corp., supra, 446 F. Supp. at 1070. Further, the connecting device is described by the claims in dispute, i.e., the angle clips connecting the V-braces to the waterpipe and the method of connecting the ends of the tie rods,[7] are not new connecting devices or methods; all were known as part of the art prior to construction of the Electrogator.

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[6]There was sufficient evidence to support the conclusion that "trusses" are obvious. There was testimony from two expert witnesses concerning principles of truss construction and there was evidence of the use of truss structures in other similar irrigation systems and in bridge construction.

[7]This consisted of extending the ends of the tie rods

Sidney relies upon (1) the "Raincat" system; (2) the "Modified Mel Brown" system; (3) the Wallace U.S. Patent No. 3,335,958; (4) the Allwood Australian Patent No. 227737; and (5) the illustrations in the Swiss Klasse Patent No. 201557 as evidence of prior art pertaining to the mechanical function of the irrigation system.

The Raincat is a pivot irrigation system with the waterpipe supported underneath by a simple truss design of triangular braces in vertical planes transverse to the pipe. The lower corners of the braces are connected by longitudinal tie members extending between the corners and up to the pipe.

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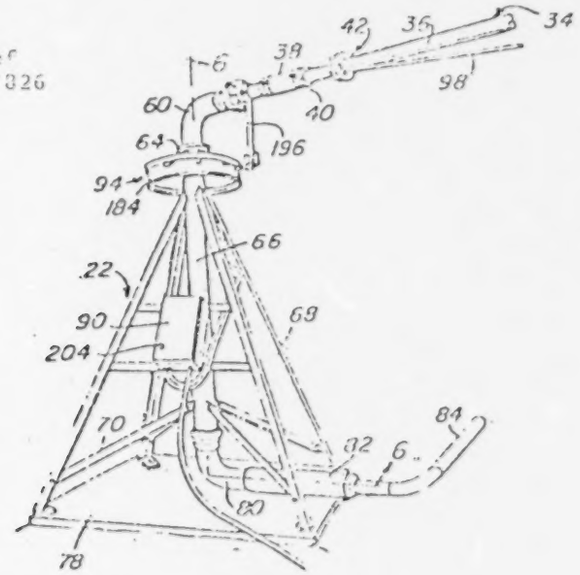
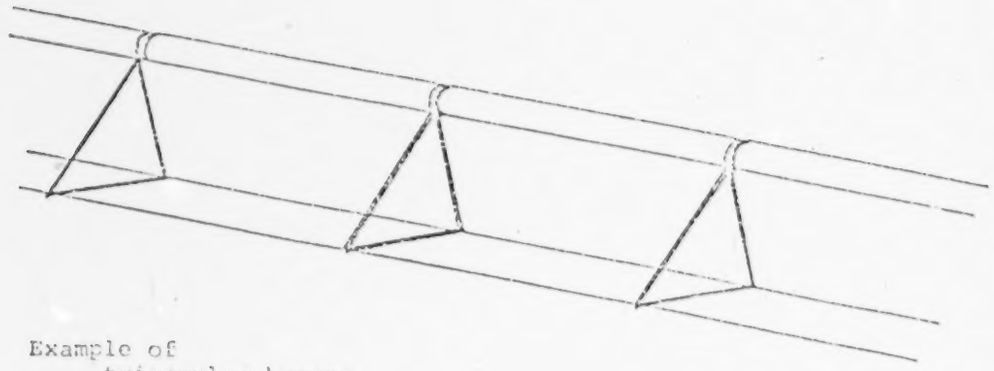
through holes in the pipe coupling flanges at the end of the boom section.

Fig. 5 of Patent '826



See picture in text, p. 5, Figure 14, #102 for an example of the angle clip.

There is a 90-foot span between the drive units.



Example of triangular braces

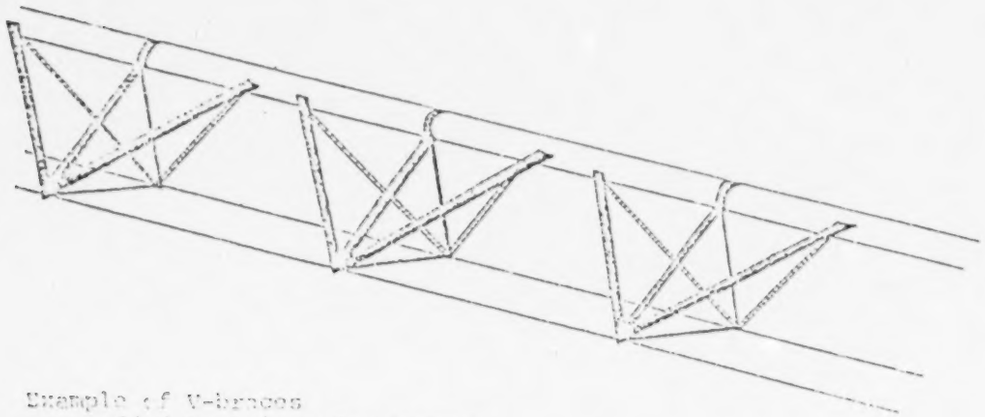
Although the Raincat was built somewhat differently over a period of years, there was testimony that indicated that the arms of the triangles in the truss system were either attached to the waterpipe with clamps that were fastened around the machine or fastened to the flange that hooked together the pipe spans. In subsequent machines, the arms of the braces were welded to lugs.

At the beginning of production of the Raincats, the tie rods were fastened to the pipe with U-bolts.

The Modified Mel Brown--in essence, a modified Raincat--came about as a result of experimentation with the Raincat. Because the U-bolts connecting the tie rods slipped on the original design, the arm of the machine would go into an S-curve and consequently bend the waterpipe.

The first step toward correcting this problem was to

put a V-brace at the center triangular brace, in order to keep the waterpipe and the tension rods from going in different directions (causing the S-curve).



Example of V-braces
added to triangular braces

The V-brace, depending upon the movement of the pipe and tension rods, will go into either tension or compression.

Later still, the V-braces were eliminated when the U-bolts were changed; the tension rods were instead welded together at a common point onto the pipe, solving the S-curve problem in a different manner.[8]

[8]One of Reinke's contentions on appeal is that the evidence was insufficient to establish the Modified Mel Brown as prior art. We hold the evidence was sufficient; Mel Brown testified that he had built at least two of the modified structures and that they were shipped out to be used by customers. There was corroborating evidence of a drawing reflecting the modified design, which was initialed by Mel Brown and dated March 26, 1963. The Reinke Patents are dated 1971 and 1973. Although Brown did admit that the structure as built

The Wallace U.S. Patent No. 3335958 and the Allwood Australian Patent No. 227737 are irrigation systems similar to the Raincat and the Electrogator. The Swiss Patent No. 201557 discloses the truss structure of what was referred to in testimony as a bridge. It was admitted as evidence by the district court but limited to the illustrations; the text is not translated into English.

Thus the scope and content of the prior art as shown at trial is, at its most refined point, generally included in the Raincat and Modified Mel Brown systems.

B. The Differences Between the Prior Art and the Claims in Issue

Reinke's primary argument is that none of the prior art discloses an arrangement in which the pipe between each pair of drive units is rigidified laterally, vertically, and torsionally by joining it with a plurality of assemblies of opposed braces of V-shape so arranged from one another and interconnected by the tie rods as in the Electrogator.

It is true that the Allwood, Raincat and Modified Mel Brown units all have vertical supports--the Electrogator does not. However, the Modified Mel Brown, in addition to the vertical supports, also has V-shaped braces similar to those on the Electrogator. In addition, truss design in general makes use of triangular braces in different planes in order to provide the support strength for which trusses are used.

was somewhat different than the drawing, the differences were minor. The primary modification, the added V-brace, was reflected in the drawing and Brown testified that the change was made to the two structures on which he worked.

Reinke still contends that the effect of its invention was to achieve a self-propelled irrigation system with a span between drive units in excess of 90 feet (120 feet) with the same attributes of strength, alignment and economy as the previously marketed irrigation systems with only 90-foot spans between drive units. Reinke partially attributes this to the connecting devices used in the Electrogator. The connecting devices for the truss support and the tie rods were different[9] in the Electrogator from prior art insofar as irrigation

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[9]We note that Mr. Reinke did not attribute a great deal of importance to this at trial:

> Q. [Mr. Thomte] I believe, Mr. Reinke, that you testified that the location of the openings in the flanges for the tie rods, were, I think in using your words, located at a very critical or strategic place. Would you elaborate on that, please?
>
> A. [Mr. Reinke] They are located in the flange about one-third from the bottom because that is the most economical way to do it that I know of and as another pipe is attached to it, which there always is in this system, you have two flanges to go through, and that makes the cheapest, the most economical, the strongest way to attach the end tie rod.
>
> Q. Could the tie rod be attached at the upper portion of the flange or at the bottom of the flange?
>
> A. It could be.
>
> Q. It wouldn't matter really where you attach it?
>
> A. It would matter; it would make a difference, but not a significant difference.
>
> Q. No significant difference where it is attached?
>
> A. Well, I wouldn't make it that broad.
>
> Q. I think that is just what you said, Mr. Reinke, that there wouldn't be any significant difference?
>
> A. What I am saying is that it is located at the most ideal location, one third up.

systems are concerned. Because Reinke alleges that the combined effect of all of the elements was new--new in that it created an effect heretofore undiscovered which enabled the span distance between drive units to be increased to 120 feet--Reinke contends that this complies with the concept of synergism.

We do not agree that this is synergism.

> When the resulting new combination produces a totally new functional aspect, to deny patentability in every case would be to sanction the use of "hindsight" in light of the claimed patent. However, at the same time, to deny patentability where the combination of elements is an obvious step, where no inherent difficulties or deterrents are involved in making the step, where the new combination results in a natural phenomenon, even though all of the advantages were not foreseen, should not bring into play the introspective condemnation of using "hindsight." The test of obviousness, again, must turn upon a case by case analysis.

National Connector Corp. v. Malco Mfg. Co., 392 F.2d 766, 771 (8th Cir.), cert. denied, 393 U.S. 923 (1968).

Thus, the difference here, even when considered most favorably to Reinke, must be confined to the fact that Reinke used a better and different truss design than had been used before in irrigation systems; Reinke used better and different connecting devices than had been used before in irrigation systems; and Reinke achieved a longer span between drive units--without compromising other qualities--than had been achieved before in irrigation systems.

C. Level of Ordinary Skill in the Art

Testimony at the trial indicated that a person of ordinary skill in the structural arts in 1967 would have been a

person "with somewhat more than elementary skills in and knowledge of the structural engineering arts who was conversant with irrigation equipment. Such person would have been aware of basic principles of truss design." Reinke Mfg. Co. v. Sidney Mfg. Corp., supra, 446 F. Supp. at 1070.

The question that must be resolved is whether this hypothetical person of ordinary skill in the art could have created the Electrogator with the differences as noted in Part B, supra. If such an ordinary person could have achieved the advancements discussed, the Electrogator is not a patentable invention as anticipated by section 103.

As we stated in University of Ill. Foundation v. Winegard Co., 402 F.2d 125, 127 (8th Cir. 1968), cert. denied, 394 U.S. 917 (1969), quoting Atlantic Works v. Brady, 107 U.S. 192, 199-200 (1882):

> The process of development in manufactures creates a constant demand for new appliances, which the skill of ordinary head-workmen and engineers is generally adequate to devise, and which, indeed, are the natural and proper outgrowth of such development. Each step forward prepares the way for the next, and each is usually taken by spontaneous trials and attempts in a hundred different places. To grant to a single party a monopoly of every slight advance made, except where the exercise of invention, somewhat above ordinary mechanical or engineering skill, is distinctly shown, is unjust in principle and injurious in its consequences.[10]

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[10] For example, as the Supreme Court stated in Busell Trimmer Co. v. Stevens, 137 U.S. 423 (1890):

> The most that can be said of [the patent before us] is that it shows * * * great industry in acquiring a thorough knowledge of what others had done in the attempt to trim shoe soles in a rapid and improved mode, by the various devices perfected

As we stated before, the truss design in the Electrogator appears to be a better truss design than the Modified Mel Brown; the angle clip appears to be a better connecting device; and the attachment of the tension rods to the pipe in the Electrogator design appears to be a better way of connecting them. Because of these improvements, the span between the Electrogator drive units can be greater while still maintaining all other desirable features. Yet, the improvements and the results achieved by those improvements are no more than those which a "hypothetical person skilled in the art, who has thought about the subject matter of the patent invention in the light of that art" could have accomplished. Flower City Architectural Metals v. Alpana Aluminum Prod., Inc., 454 F.2d 98, 108 (8th Cir. 1972).[11]

There is substantial evidence to support the trial court's

> by patents for that purpose, good judgment in selecting and combining the best of them, with no little mechanical skill in their application; but it presents no discoverable trace of the exercise of original thought.

Busell Trimmer Co. v. Stevens, supra, 137 U.S. at 435, quoted in University of Ill. Foundation v. Winegard Co., 402 F.2d 125, 127 n.4 (8th Cir. 1968), cert. denied, 394 U.S. 917 (1969).

[11] Reinke argues that the testimony of the fabrication manager for Layne & Bowler (manufacturer of the Raincat), Mr. Walker, is in direct conflict with the trial court's finding of obviousness. Walker's testimony indicated that Layne & Bowler experimented with various truss designs in order to achieve a 120-foot span while still keeping other desirable features. Under the mandate of Graham, this "failure of others" is certainly a factor which may be considered as indicia of obviousness, Graham v. John Deere Co., supra, 383 U.S. at 17-18. "But where, as here, the facts establish convincingly that the invention was obvious against the background of the relevant prior art, [this] cannot be controlling." Cummins Engine Co. v. General Motors Corp., 299 F. Supp. 59, 89 (D. Md. 1969), aff'd, 424 F.2d 1368 (4th Cir. 1970), quoted in Hadfield v. Ryan Equip. Co., 456 F.2d 1218, 1221 (8th Cir. 1972).

finding that the '826 and '953 patent claims in issue are invalid for reasons of obviousness. It is therefore unnecessary to reach the issue of infringement. We affirm.

A true copy.

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UNITED STATES COURT OF APPEALS

TENTH CIRCUIT

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United States Court of Appeals
Tenth Circuit
MAR 9 1979
HOWARD K. PHILLIPS
Clerk

Nos. 77-1561 and 77-1562

DEERE & COMPANY,	)	
	)	
Plaintiff-Appellee and Cross-Appellant,	)	Appeal from the United States District Court for the District of Utah, Central Division (D.C. No. C 299-73)
	)	
v.	)	
	)	
HESSTON CORPORATION,	)	
	)	
Defendant-Appellant and Cross-Appellee.	)	

Dugald S. McDougall, Chicago, Illinois (Dennis McCarthy and Rand L. Cook, Salt Lake City, Utah, and Theodore R. Scott, Chicago, Illinois, on the brief), for Plaintiff-Appellee and Cross-Appellant.

Gordon D. Schmidt of Schmidt, Johnson, Hovey & Williams, Kansas City, Missouri, for Defendant-Appellant and Cross-Appellee.

Before HOLLOWAY and DOYLE, Circuit Judges, and STANLEY,* Senior District Judge.

DOYLE, Circuit Judge.

* Of the District of Kansas, sitting by designation.

I.

THE PLEADINGS AND PROCEEDINGS

Plaintiff-appellee Deere & Company instituted this action in the United States District Court for the District of Utah. A declaratory judgment to declare certain patents invalid was prayed for against the Hesston Corporation of Hesston, Kansas, the owner of United States Patent No. 3,556,327, entitled "Loose Hay Wagon," issued January 19, 1971, and filed by Harold Keith Garrison April 14, 1969; also, United States Patent No. 3,728,849, entitled "Hay Loader," issued April 24, 1973, on application filed November 14, 1969, by Ezra Cordell Lundahl.

From further allegations in the complaint it appears that Deere has designed and built a hay wagon, has exhibited it and offered it for sale at meetings of farm implement dealers, and is now manufacturing and selling in competition with a hay wagon manufactured and sold by Hesston, named StakHand.

It is further alleged that Hesston notified Deere that it considered the Deere implement to have infringed on both the Garrison and Lundahl Patents. Deere maintains in furtherance of its complaint that the Hesston and Lundahl Patents are invalid and so not infringed; also, it maintains that the Garrison and Lundahl Patents were obtained through fraud on the Patent Office and that they are invalid because of the sale of a prototype of the hay loader in the Lundahl Patent.

The answer on behalf of the defendant-appellant denies the allegations as to the invalidity, fraud and prior sale of a prototype and contains a counterclaim alleging infringement.

A supplemental counterclaim lists a series of Hesston Patents. These include those mentioned above together with improvement patents.[1]

Plaintiff-appellee Deere has filed a reply to the fourth supplemental counterclaim as a result of which all matters are fully in issue.

This matter was tried to the court before United States District Judge Anderson, District of Utah, who ruled all eight patents of Hesston Corporation invalid under 35 U.S.C. § 102(b) and 35 U.S.C. § 103. The district court essentially ruled that the patents in issue were invalid for obviousness as provided in 35 U.S.C. § 103 and known to the public for more than one year before the patent application under § 102(b).

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1. The numbers, name and dates of issue are as follows:

Number	Title	Patented
3,556,327	Loose Hay Wagon	January 19, 1971
3,728,849	Hay Loader	April 24, 1973
3,757,687	Press Mechanism for Stacking Implements	September 11, 1973
3,828,535	Hay Loader	August 13, 1974
3,842,732	Tailgate Control for Stackers	October 22, 1974
3,847,072	Loose Hay Wagon	November 12, 1974
3,878,670	Stack Forming Loader	April 22, 1975
3,899,966	Machine for Loading, Stacking and Unloading Crops	August 19, 1975

The trial court said that the controversy centered around four patents: Lundahl Patent No. 3,728,849, a haystacking method; Lundahl Patent No. 3,828,535, a haystacking machine(Lundahl I Patent and Lundahl II Patent, respectively). The other two primarily involved are the Garrison Patent No. 3,556,327, a haystacking machine, and the Garrison Patent No. 3,847,072, a haystacking method (the Garrison I Patent and Garrison II Patent, respectively).

II.

HISTORY AND BACKGROUND

This controversy had its origins in 1960 and the years following.

The Lundahls, Cordell and Ezra, son and father respectively, were engaged in the manufacture of loose hay wagons. Cordell, the son, saw the need for a machine that would transform loose hay into closely packed haystacks which could either be left in the field or moved to a storage place.

Lundahl's first machine was a simple wagon which compressed the hay. It was loaded by a machine known as a Farmhand grapple fork or a Farmhand. This latter was pulled by a tractor through the hay field where it would pick up loose hay and deposit it into the wagon. This wagon had high side walls and a front panel which moved toward the rear and in so doing compacted the hay against the rear doors. Lundahl discovered that this mechanism loaded the hay unevenly and without a uniform density. The result was disintegratio of the hay stack. There were other deficiencies. The loading was

a separate function; there was a lack of integrated method of pulling the wagon down the windrow. The operation was in two separate steps, in other words. After the loading there followed the horizontal compaction which was also in stages. Each time some hay was loaded it had to be compressed and then more hay would be added and compressed until the wagon was filled. While producing one complete haystack, this process resulted in a stack which tended to separate and fall apart. To overcome this,Lundahl added vertical compression units consisting of two gate-like top presses which would be set as extensions of the side walls and would swing down from the top on hinges powered by hydraulic compressors. Notwithstanding this, though, the principal compression was the horizontal force created by compressing the crop against the back walls of the wagon.

In February 1966, Lundahl advertised in a farm journal a one-man automatic feeding system for long hay. While the advertisement said that the machine would stack and compress loose hay from the windrow into neat uniform stacks without any manual handling, at this time an integrated system had not been developed: The wagon still had to be loaded separately. One Warren DePuy purchased one of these incomplete machines. It lacked the attachment which would make the machine self-loading. This was promised at a later date. This is here referred to as the DePuy machine and it was put to use during the 1966 haying season and for part of the 1967 season, but had mechanical difficulties as a result of which DePuy sued the Lundahl Corporation for breach of warranty. After this the machine was abandoned by DePuy.

In 1966, the Hesston Corporation, defendant-appellant here, bought the assets of the Lundahl Corporation.[2] Hesston was very much interested in the stacking machine idea and pursued it through one of the engineers for Hesston, Keith Garrison, who worked with Cordell Lundahl on improving the design. Prior to this, Lundahl had come to the realization that vertical compaction was desirable. This led to the development of the swinging top-gates which came down on the loaded haywagon and also the addition of the tuckers to the undersides of the hinged gates on the earlier prototype. So the research was pursued along the line of developing the vertical compaction. Testing along this line continued through 1968 with several prototypes, including a 1966-67 prototype with redesigned top-presser gates integrated with a crop pick-up and distribution system. Eventually Garrison came up with a method of continuous loading of hay into a moving wagon by using the blower duct system with a dispersal mechanism which served to spread the hay evenly. Garrison also discarded the two-gate approach and adopted a single unit, described as an inverted U, which is used to apply downward pressure. These innovations were said to have produced "real good" results which yielded stacks of uniform density and having a self-supporting nature. Also, the stacks were better shaped from the standpoint of shedding water. This machine was ultimately marketed.

Hesston, in the year 1969, commenced the production of the StakHa 60, which made six ton stacks. Some smaller editions or models were

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2. A brief description of the Hesston Corporation is set forth in Appendix I.

added later, such as the StakHand 30, for forming three ton stacks, and the StakHand 10, which produced a one ton stack. Improved models were identified with an "A" after the number.

Deere and Company started selling machines which made one ton stacks, three ton stacks and six ton stacks, all of which appeared to be based on the same design as the Hesston machine. This activity produced the present controversy.

The application for patent on the Garrison I was filed in 1969. It matured January 19, 1971.

At the very outset the Garrison II Patent was rejected on the basis of prior art. The Patent Office ruled that Garrison II was the same as the Sutherland British Patent, the only difference being its blower conveyor. After this, Hesston offered an amendment claiming that it was not based on any prior art and saying that "it is absolutely new to provide a hay gathering or collection feature in a press as its initial function in cooperation with the main crop receiving body." The Patent was finally issued August 13, 1974.

The Lundahl Patents I and II suffered somewhat the same fate. Lundahl I was filed in 1969 and rejected in 1972. The rejection was based on the prior issuance of Garrison I. Lundahl, by swearing back, established that he had completed his invention prior to the date the Garrison I Patent was filed. The application was accepted and the patent matured in 1973.

The Lundahl II, which was also based on the Garrison I, was rejected by the examiner. Again, this objection was overcome by swearing back, but ultimately some but not all of the claims were allowed.

These four described patents, together with four so-called minor patents, were all ruled invalid, and basically these rulings are the issues for consideration on this appeal.

III.

THE JUDGMENT OF THE TRIAL COURT

Judge Anderson's opinion, which is published in 456 F. Supp. 520 (D. Utah 1977), constitutes thorough and careful workmanship, and in writing this opinion we have made full use of it. The opinion considers the following issues:

A. Fraud on the Patent Office.

   The contention of plaintiff-appellee Deere that fraud was perpetrated on the Patent Office.

B. The patentability of the Garrison, Lundahl and improvement patents. Included was the nonobviousness under § 103, and prior sale or use under § 102(b).

Essentially the contention of fraud perpetrated on the Patent Office is predicated on Hesston's failure to disclose in the application for the Garrison I and II Patents the prior art contained in the Lundahl prototype haystacking wagon which was merely mechanic improved by Lundahl originally, and also the failure to disclose in the Lundahl I and II proceedings the sale and development of the DePuy machine.

The trial court pointed out that under McCullough Tool Co. v. Well Surveys, Inc., 343 F.2d 381, 394 (10th Cir. 1965), Deere had the burden of establishing the obtaining of the four main patents by the use of fraud. Here the form of the fraud was nondisclosure and it would have to appear that the Patent Office would have rejected the Hesston application but for the fraudulent nondisclosure. See Norton v. Curtiss, 433 F.2d 779, 795 (C.C.P.A. 1970). The trial judge was not convinced that the Patent Office would have rejected the four major patents but for the nondisclosure, nor was the court able to conclude that there was any willful, intentional, wrongful or even reckless conduct in the failure to disclose. The court concluded as follows:

> Based on the present state of the record, the court concludes that the evidence is insufficient to impute to Hesston and its attorneys a fraudulent intent or gross and reckless conduct that would justify a finding of patent invalidity due to a purported fraud on the Patent Office. Hesston and its attorneys exercised good faith judgment on whether to include the prior Lundahl wagons as prior art in the Lundahl I, II and Garrison I, II patent applications. That good faith judgment, based on a strict notion of the scope of the intended patent in reference to the prior art, though erroneous, will not render the patent invalid. The court, therefore, denies Deere a declaratory judgment that the four major patents in issue are invalid due to Hesston's alleged fraud on the Patent Office.

On the question of invalidity of the patent as having been unpatentable under the prior art, the trial court reviewed the history of the particular provision noting that prior to the Patent Act of 1952, the requirements were that the device was to be "new and useful." Cited was Hotchkiss v. Greenwood, 52 U.S. (11 How.)

248 (1851), where the Supreme Court in defining the term "new" stated that "to be patentable a device must demonstrate 'skill and ingenuity' beyond that possessed by 'the skillful mechanic.'"

The 1952 Act, the court pointed out, reenacted the "new and useful" formula of patentability in the form of the terms novelty and utility in place of the requirement of the invention test by introducing nonobviousness.

The trial court concluded that the standards for determining patentability of the Hesston's Patents were, then, utility, novelty and nonobviousness. The court also concluded that Deere had not seriously challenged the patents as not having utility.

IV.

WHETHER THE DETERMINATION BY THE TRIAL COURT THAT THE PATENTS FAIL FOR OBVIOUSNESS IS SUPPORTED BY THE FACTS AND THE LAW OF THE CASE[3]

The trial court relied on the case of Graham v. John Deere Co., 383 U.S. 1 (1966). Obviousness under § 103, it was said in John Deere, is to be determined in the light of the prior art by studying the differences between the prior art and the claims at issue and by resolving the level of ordinary skill in the pertinent art. Against this background the obviousness or nonobviousness of the subject matter is determined. The Court, in John Deere, said that "Such secondary considerations as commercial success, long felt but

3. Appended to the opinion is a discussion of the operation of the Lundahl and Garrison machines. We hope that it will provide a better understanding of the functions of the patents in suit.

unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented." 383 U.S. at 18-19. These could not, however, substitute for lack of invention.

In subsequent cases the Supreme Court has continued to apply the Graham test of patentability under § 103. The more important of the Supreme Court cases on the subject are Sakraida v. Ag Pro, Inc., 425 U.S. 273, 280 (1976), and Dann v. Johnston, 425 U.S. 219, 230 (1976).

The court then goes on to consider the Hale, Isom and Sutherland Patents cited as prior art by Deere. Hale dates back to 1887 and describes a hay-cocking machine, the main function of which was to gather hay or other fodder up from a field and discharge the fodder to the ground in compact piles or cocks for protection against storms. It sounds familiar. The Hale claims 1 through 4 state that the machine gathered the hay from the ground, elevated it into an open bin, provided distribution reciprocating back and forth over the open top together with a hinged bottom to drop the hay "cock" on the ground.

The Isom Patent, which is dated in July 1918, describes a mechanical hay shocker which, in combination, comprised a hopper, delivery means discharging into the hopper, tamping members within the hopper, a draper forming the bottom of the hopper and a facility for stopping the delivery means. The tamping member operated, the doors opened, and the draper started in motion.

The Sutherland Patent described a harvesting machine which provided an improved construction and a method

by which the hay can be compressed to form a stack and then deposited on the ground. This Sutherland Patent, dated in 1964, was t examiner's prior art reference for rejection of the Garrison II Patent application. This British patent was said by the trial court to clearly teach vertical compression of the hay to form a stack. Sutherland had a wheeled trailer attached to a tractor with a compression chamber mounted on the trailer into which hay could be "charged," the chamber being open at the top and having a rear wall which could be opened, and a hydraulically operated compression member by which the hay introduced into the chamber could be compressed so as to form a stack which could then be ejected from the chamber when the rear wall was opened.

A number of other prior art patents were cited, particularly the DePuy machine and the Lundahl prototype from which Garrison and Lundahl worked in order to perfect the vertical compression as well as pickup, elevation, even distribution, compaction and discharge.

McCullough Tool Co. v. Well Surveys, Inc., 343 F.2d 381, 393 (10th Cir. 1965), articulated a somewhat liberal test governing an aggregation of old parts so as to produce a patentable invention. The opinion said:

> The test of whether a particular patent is a mere aggregation and invalid or a combination and valid has been variously stated. Generally, where elements old in the art are united in such a way that a new and useful result is secured or an old result is attained in a more facile, economical and efficient manner, there is a patentable combination. Dewal, Inc. v. Minnesota Mining and Mfg. Co., 10 Cir., 292 F.2d 159; Oliver United Filters v. Silver, 10 Cir., 206 F.2d 658, cert. denied, 346 U.S. 923, 74 S.Ct. 308, 98 L.Ed. 416.

343 F.2d at 393.

It is noteworthy that this court also said, just prior to the above quote, that:

> It is universally held that a mere aggregation of a number of old parts or elements which, in the aggregation, perform or produce no new or different function or operation than previously performed or produced by them, is not a patentable invention. Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp., 340 U.S. 147, 71 S.Ct. 127, 95 L.Ed. 162; Admiral Corporation v. Zenith Radio Corp., 10 Cir., 296 F.2d 708; Consolidated Electro. Corp. v. Midwestern Instruments, 10 Cir. 260 F.2d 811.

343 F.2d at 393.

It would appear that the Supreme Court has recognized in Dann v. Johnston, 425 U.S. 219 (1976), that commercial success and failure of others may be relevant in determining obviousness or nonobviousnes However, the Supreme Court in Dann v. Johnston, supra; Sakraida v. Ag Pro, Inc., 425 U.S. 273 (1976); and Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp., 340 U.S. 147 (1950), also emphasized that commercial success without invention does not suffic In Sakraida, the invention, a system to flush cow manure from barn floors, was held to be obvious. In Dann v. Johnston, supra, a computer system which provided recordkeeping for bank checks and deposits coded into categories by the bank customer was not patentabl because it was obvious. The point was also made in Sakraida that in order for the combination of old elements to prevail, there must be a synergistic effect, that is, an effect greater than the sum of the several effects taken separately. The trial court was mindful of the Supreme Court's admonition in Great Atlantic & Pacific Tea Co. v. Supermarket Equipment Corp., supra, that courts should scrutinize a combination of patent claims with care proportioned to the difficulty

and improbability of finding an invention in an assembly of old elements. The patent is supposed to add to the sum of useful knowledge, the Supreme Court said, and patents are not to be sustained when their effect is to subtract from former resources freely available to skilled artisans. The trial court was cognizant of this in determining whether the differences were obvious to one reasonably skilled in the art, pointing out that one who makes such an invention is charged with awareness of the existing technology.

The trial court was not incorrect, as we view it, in its holding that the Hesston Patent[5] did not achieve a synergistic result that would be nonobvious to one reasonably skilled in the art. On the contrary, the court concluded that Hesston's Patents demonstrated the work of a skilled mechanic, the difference being that these patents do not achieve a nonobvious patentable difference from the prior art since they have combined old elements which continue to function as they did previously. The old elements do not in combination perform a new and different function even though the wagons did succeed in producing a striking result by combining the old elements.

In our view, the strongest point in Hesston's case rests in its contention that a new and different result, which realized great commercial success, flowed from the combination of the old elements and that this overcomes the argument that the result was invalid for obviousness. Nevertheless, we must disagree with Hesston's position. It is our conclusion, as indicated above, that the trial judge correctly appraised the prior art and the combination in the light of the commercial success of the patents.

The issue in question has given us pause and concern, but we are in a less favorable position than was the trial court in terms of making the present evaluations.

The other issues determined by the trial court, which we have described in detail, fraud on the Patent Office and prior sale or use under § 102(b), are supported by the evidence. Although we have examined them for possible plain error, none is perceived.

One further matter which we deem it necessary to consider is whether the trial court erred, as Deere contends, in denying the request for lawyers' fees. Here again, our disposition is to accept the finding and conclusion of the trial court, which was not convinced that this was an extraordinary case, whereby Deere would be entitled to fees. After all, Hesston was the patentee in this case and it surely had the right to litigate without being assessed Deere's attorneys' fees, in the absence of any extraordinary actions, like fraud, by Hesston.

The judgment of the district court is affirmed.

APPENDIX I

The Hesston Corporation, of Hesston, Kansas, is a rapidly growing corporation which primarily manufactures farming and industrial equipment. In the past ten years it has grown nearly tenfold. In fiscal 1966, Hesston reported net sales of $25,466,000, a net income of $1,148,000, and total assets of $13,440,000. In fiscal 1975, it reported net sales of $207,857,000, a net income of $9,572,000, and assets totaling $161,641,000. In the same period the number of persons it employed rose from an average of 1,050 to an average of 4,581.

By way of comparison, in fiscal 1975 Deere & Company reported net sales of $2,955,204,000, a net income of $179,073,000 and total assets listed at $2,440,829,000. At the close of 1975 Deere had 53,794 employees.

Both companies produce a wide range of products in general categories which include farm equipment, industrial equipment, and office and consumer products. Both operate in the United States and abroad. As an example of the level of diversity of these two corporations, Deere makes machines ranging from snowmobiles and lawn tractors to heavy duty graders, large tractors, and combines. Hesston also has a wide range of products. It makes, inter alia, back-hoes, waste disposal units (compactors, incinerators, etc.), snowblowers, harvestors, office furnishings, and of course, windrower and stack forming machines.

Hesston's largest division is farm equipment which, in 1975, accounted for 96% of Hesston's net sales. The hay stacking machines

here at issue fall into this category. The hay handling equipment product line, in 1975, produced 37% of Hesston's net sales. This 37% is a figure which rose from 16% in 1971. Hesston's second leading product line consists of windrowing machines, which, in 1975, accounted for 24% of Hesston's net sales.

Hesston is a corporation of global scope. It operates plants in France and Italy, has licensees in Australia, Argentina, and Brazil, and distributors throughout the world.

APPENDIX II

OPERATION OF THE LUNDAHL AND GARRISON MACHINES

The Lundahl Machine.

In this design, two parts, a loader and a compressing wagon, comprise the machine. The loader loads the hay from the windrow by a rotary pickup unit which has tynes or fingers rotating on a horizontal axis. This unit delivers the hay to an "endless" conveyor belt which elevates the crop. Neither aspect is particularl novel and the applicant notes this by providing that these elements may be powered in any suitable fashion.

The elevator unit consists of two parallel endless chains connected by cross slats. This unit inclines up toward the conveyor assembly which extends horizontally rearwards, from the elevator, and is located over the chamber in which the hay is to be dropped. An endless belt which runs up the elevator and over the conveyor actually carries the crop. At the back end of the conveyor is a roller which moves longitudinally back and forth and serves to disperse the hay to the front and rear of the chamber body.

The elevator/loader housing and the main body are connected in a pivotal fashion allowing the body to be shifted from side to side without shifting the loader. This allows the hay to be dispersed from side to side in the wagon as the wagon is shifted. (This pivotal mechanism also permits better operation over uneven terrain by allowing the unit to twist on a longitudinal axis so that while the loader cants go the left the body lists to the right, and vice versa.)

The compression is achieved by the swingable gates, and tuckers attached thereto, which are a part of the main body. In the loading stage each gate is set in an upward position, as an extension of the side of the body, and aids in channeling hay from the conveyor into the body.

In the compression stage, the gates swing in and down, compressing the hay towards the floor. The tuckers add pressure to the hay near the walls. The resulting stack is packed and rounded on the top thus having the desirable quality of readily shedding moisture.

In unloading, the loader/elevator housing and the main body can be separated. This allows the operator to tow only the body to the unloading area. Offloading is accomplished by tilting the body down so that the rear rests on or near the ground, opening the tail gate, and pushing the stack by means of the false front.

The Garrison Machine.

In this machine the loading component is again housed at the front of the body. The crop is picked up by a drum rotating on a horizontal axis. The drum has projecting tynes which actually pick up the crop. The hay is then delivered to another rotating drum, placed superjacent to the pickup drum, which has retractable fingers which carry the crop. This latter device delivers the hay into the path of a fan. The fan, housed in a duct, blows the hay upward. The hay, channeled by the duct housing, is directed up and then back into the wagon.

The loading system moves laterally back and forth at all times during the loading thus causing the crop to be dispersed from side to side in the wagon. At the outlet of the duct is a deflector plate which the operator may cause to swing up and down, as the blower swings back and forth, allowing the hay to be distributed to the front and back of the receiving body. These two oscillating elements are calculated to produce even distribution of the crop in the body.

The body has, as an integral part, a press. The press consists of a pitched roof (one that slopes down from both sides of the longitudinal center line), sides, and a rear wall which also functions as a gate. When the press is raised, the body and the press form a closed chamber into which the hay is blown. When the chamber is full, i.e., when the hay reaches the blower outlet near the top and front of the body, the loading is halted and the press activated. The press descends vertically upon the mass of hay. This process is repeated until the wagon is full of pressed hay.

When the stack is ready to be offloaded, the press does not have to be raised as both the back wall of the main chamber and the back wall of the press open as gates. The gates are raised and the body tilted so that the rear rests on or near the ground. The wagon is pulled forward and, at the same time, the stack pushed back and out. This last maneuver is achieved by means of a push bar which is located at or near the front of the wagon, near the base, and runs from one side to the other. The bar is attached to chains which run the length of the body and, when engaged, pull the bar towards the rear.

DIAGRAMS OF THE LUNDAHL AND GARRISON MACHINES

Figures one and two portray the Lundahl machine in the compression stages. The view is from the rear. In figure one the side gates are swinging down to press the hay. In figure two the gates are down and the manner in which the "tuckers" compress the crop near the side walls of the wagon is shown.

Figures three and four are side depictions of the Garrison machine. In figure three the press is raised for loading. In figure four the press has been lowered to form the stack.

Figure five shows the Garrison machine from the rear, figure six the front. One can see, in figure five, the sloping characteristics of the press roof. In figure six the blower/elevator loading apparatus can be seen. The fashion in which the duct oscillates from side to side is also shown.

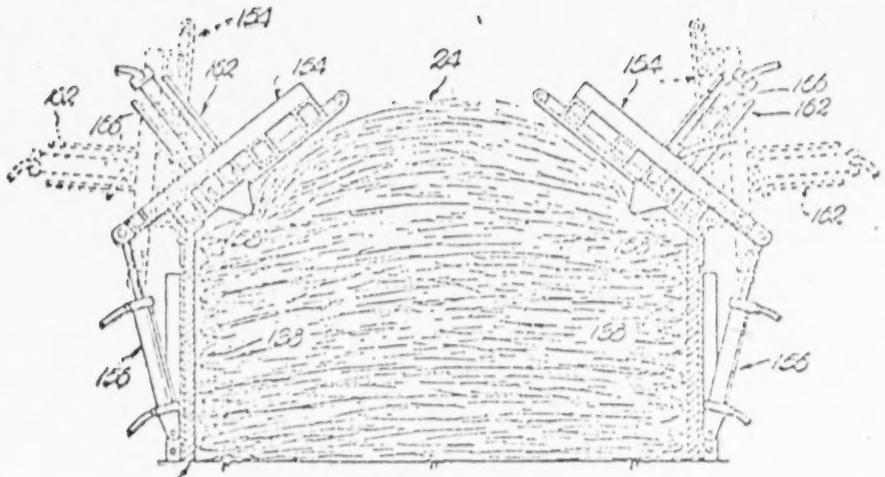

Fig. 1

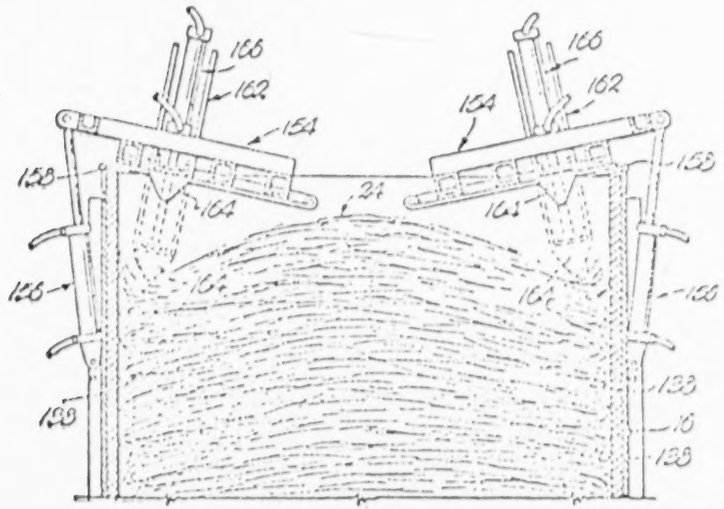

Fig. 2

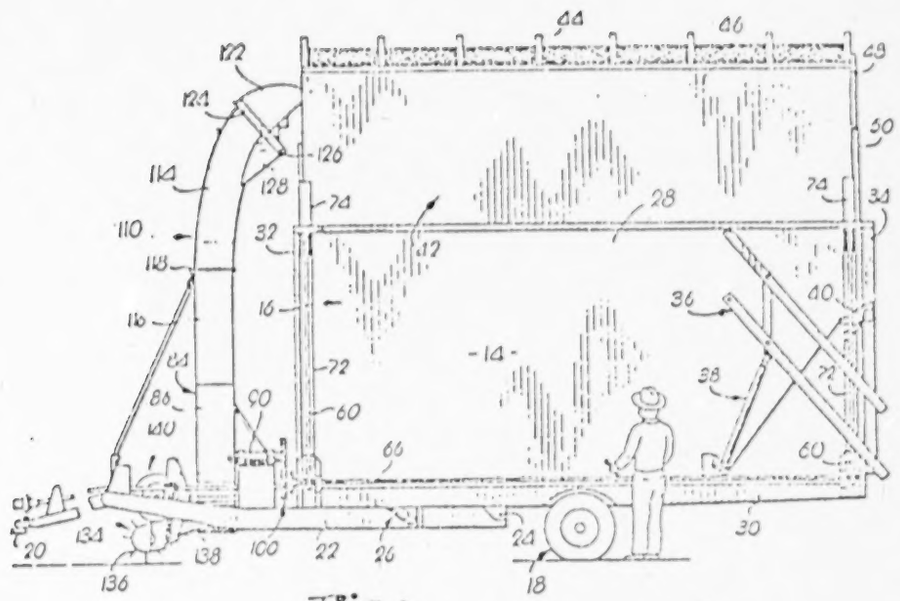

Fig. 3

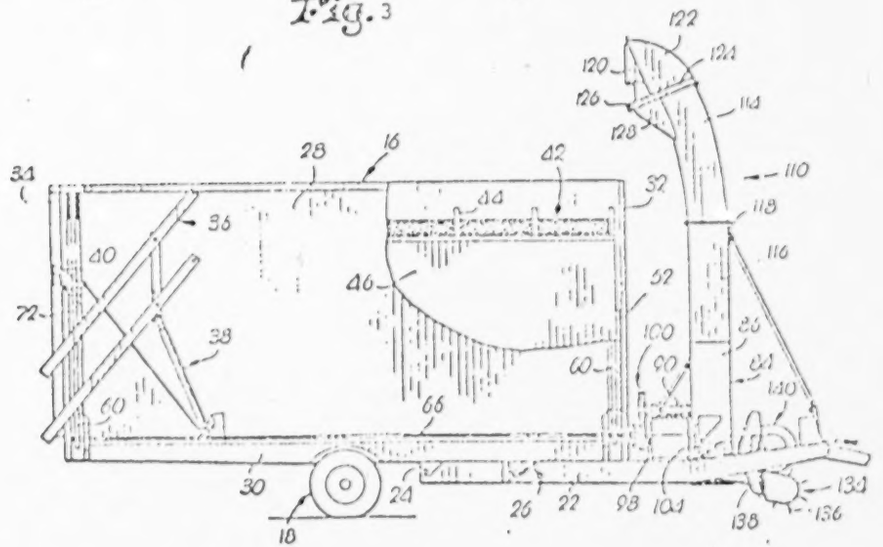

Fig. 4

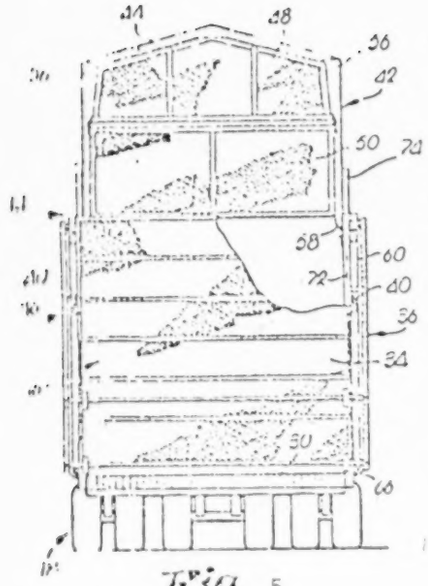

Fig. 5

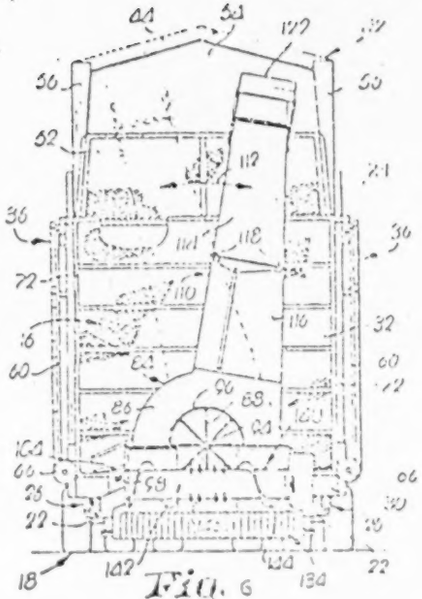

Fig. 6

PC PTCJ

United States Court of Appeals

For the Tenth Circuit

4

SLIP OPINION

Supreme Court, U. S.
FILED
MAR 23 1979
MICHAEL RODAK, JR., CLERK

IN THE

Supreme Court of the United States

OCTOBER TERM, 1978

No. 78-1304

AMERICAN SEATING COMPANY,
Petitioner,

v.

NATIONAL SEATING COMPANY,
Respondent,

RESPONDENT'S APPENDIX

By: CHARLES B. LYON
MAKY, RENNER, OTTO & BOISSELLE
601 Rockwell Avenue
Cleveland, Ohio 44114
216-621-1113
Attorneys for Respondent

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FILED
NOV 24 1978
JOHN P. HEHMAN, Clerk

Nos. 76-2625 & -2626

UNITED STATES COURT OF APPEALS
FOR THE SIXTH CIRCUIT

AMERICAN SEATING COMPANY,

Plaintiff-Appellant
Cross-Appellee

vs

NATIONAL SEATING COMPANY,

Defendant-Appellee
Cross-Appellant

ORDER

Before WEICK and MERRITT, Circuit Judges, and CECIL, Senior Circuit Judge.

No active Judge of this Court having requested that a vote be taken on the suggestion of appellant that its petition for rehearing be heard en banc, said petition for rehearing was referred to the panel.

Upon consideration of the petition for rehearing we are of the view that the issues of this case were adequately treated in our opinion and that there is no merit in the petition for rehearing.

It is therefore ordered that the petition for rehearing be and it is hereby denied.

ENTERED BY ORDER OF THE COURT.

John P. Hehman
Clerk

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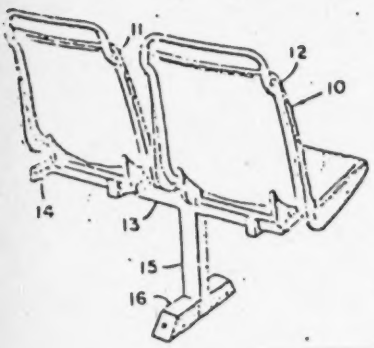
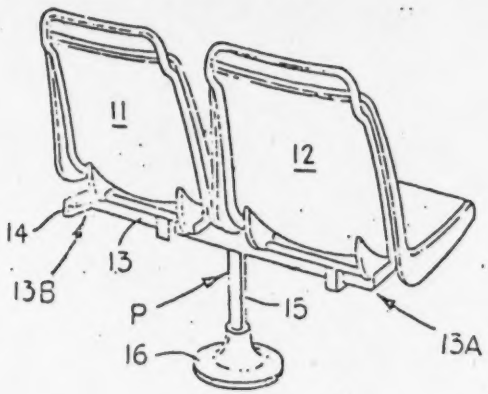
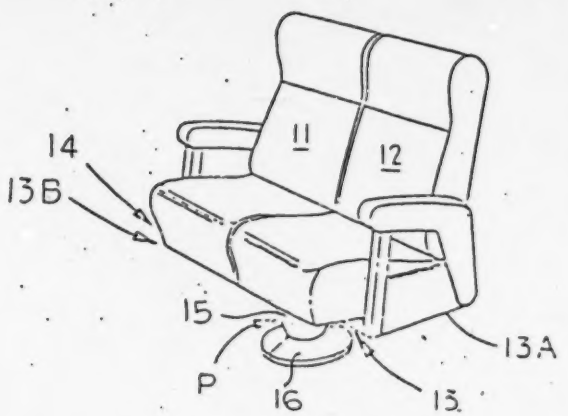


FIGURE 2 OF '226
PATENT FILED IN 1971

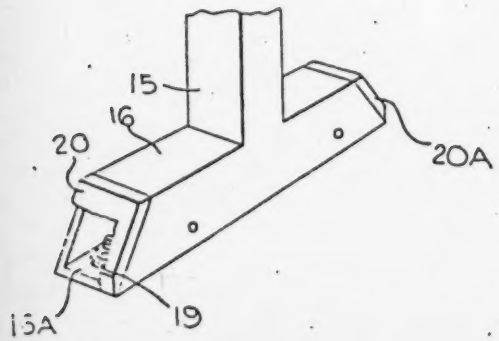


AMERICAN ROUND BASE
CENTER PEDESTAL SEAT (1969)

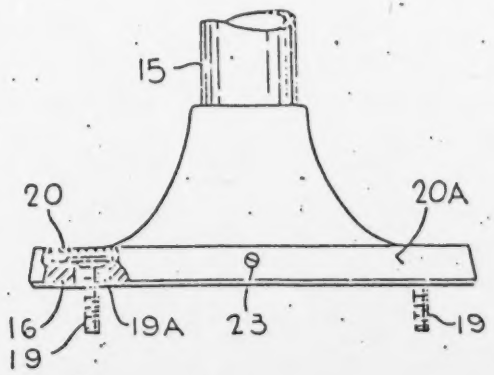


NATIONAL CENTER PEDESTAL TOUR
COACH SEAT (1955-6)

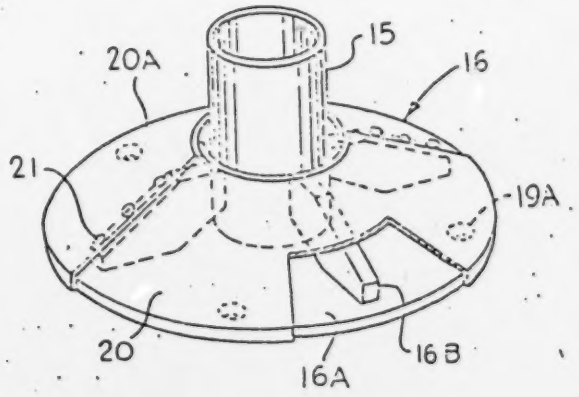
2



DETAIL OF PEDESTAL
FOR '226 PATENT

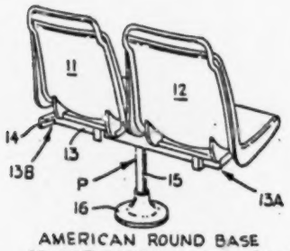


DETAIL OF AMERICAN ROUND
BASE PEDESTAL AND COVER

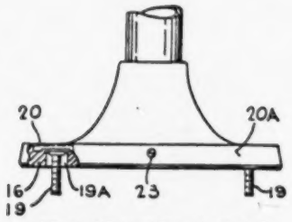


DETAIL OF NATIONAL'S PEDESTAL
FOR TOUR COACH SEAT

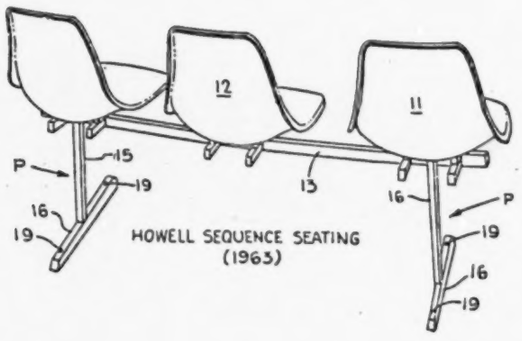
PRIOR ART STRUCTURES



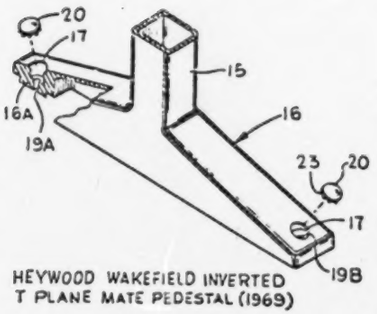
AMERICAN ROUND BASE
CENTER PEDESTAL SEAT (1969)



DETAIL OF AMERICAN ROUND
BASE PEDESTAL AND COVER



HOWELL SEQUENCE SEATING
(1963)



HEYWOOD WAKEFIELD INVERTED
T PLANE MATE PEDESTAL (1969)

AMERICAN SEATING COMPANY V.
NATIONAL SEATING COMPANY
CIVIL ACTION NO. C75-63-A
DEFENDANT'S EXHIBIT 7A

A We go back to the date of the drawing. It was July, 1969.

Q Had American Seating previously mounted seats on beams for theater and lecture room seating?

A May I ask you to restate that question?

MR. LYON: Would you read it back, Mr. Reporter.

(The last question was read back by the reporter.)

A Yes, because this design was taken from a lecture seating.

Q And when you say "this design," you are referring to the beam shown on Defendant's Exhibit "E"?

A Yes.

Q With respect to the pedestal shown on Defendant's Exhibit "E," and specifically the rounded base pedestal, was that pedestal previously used by American Seating for lecture room or auditorium-type seating?

A It was originally designed for a single pedestal chair.

Q When you say "single pedestal chair," what do you mean?

A That only one chair top would be setting on it.

Q And what would be the use of a single pedestal chair?

A The application was for a planetarium seat.

Q Do you recall when that was?

A I can't tell you the date, I do not know. It was prior

299 recollect in my mind what it was.

Q Are you interested in seating when you see seating around, since it is your livelihood?

A I designed the seats, and I usually come up with innovative seats, and I don't look necessarily from that point of view.

Q I show you Defendant's Exhibit VR. Are you familiar with that exhibit?

A Yes. That is the unit I designed.

Q And that is the American Seating which is entitled, "Movable pedestal horizontal seating for 76 series"?

A Right.

Q How long has that type of sequence seating been available from American Seating?

A I don't know.

Q Since prior to 1970?

A Yes. I would say prior to 1970.

Q Did you design this seating for the model, for the '76 series, Defendant's Exhibit VR?

A No.

Q Do you know who did?

A I don't know who it was.

Q Prior to 1970, were you familiar with the inverted T tubular pedestals for tables?

300 A I have seen some, yes.

Q And do you recall whose you saw prior to 1970?

A No, I don't know. I didn't ask whose it was. I just happened to see it.

Q Do you recall where you saw it?

A No, I don't.

Q Handing you a copy of Defendant's Exhibit AT, are you familiar with that?

A Yes. I saw this table.

Q You saw that specific table prior to 1970?

A Yes.

Q And does American Seating have that table?

A No -- I don't know when I saw it.

Q Does American Seating have that table in its possession?

A That, I don't know.

Q And looking at Defendant's Exhibit AT, isn't it true that a tubular T pedestal is disclosed?

A It is a T pedestal, but it is still not the same thing.

Q Isn't it true that it is a tubular T pedestal?

A This is a free standing table. It is not the same.

Q I didn't ask you that. I asked you if it is a tubular T pedestal?

A It is a T pedestal.

Def X 77.744
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11-25-75

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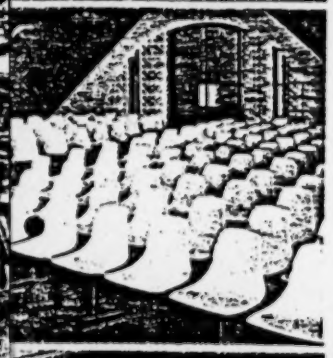

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CLINICS · RESTAURANTS
WAITING ROOMS
CLUBS · CAFETERIAS
DINING ROOMS
COLLEGES · CHURCHES

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Fiberglass Chairs - - - - - - - - - 22 to 24
Tablet Arm Chairs - - - - - - - - - - - 25
"Sequence" Multiple Seating Units - - - - 28 to 33
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Specification Data - - - - - - - - 48 and 49

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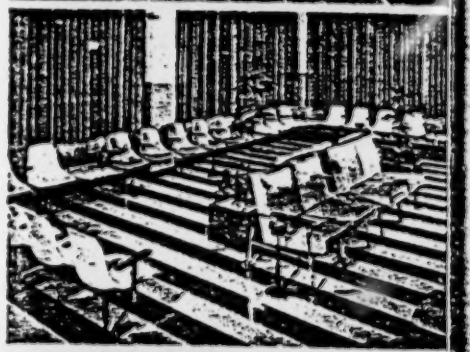
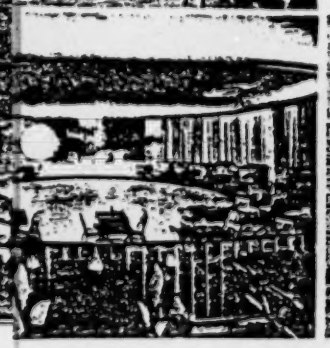
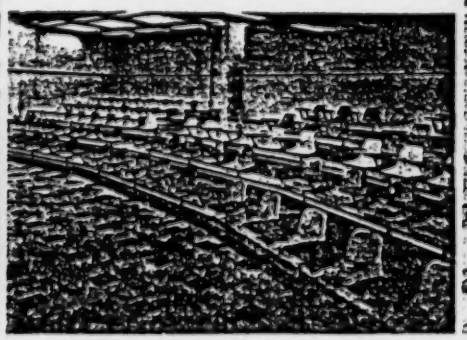
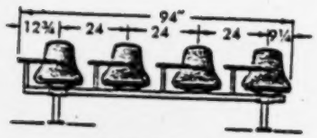
St. Charles, Illinois







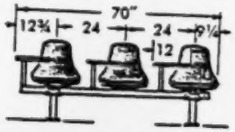
"SEQUENCE" TABLET-ARM SEATING



RT-UNIT
4 Passenger Starter Unit

Includes 4 Howeltex textured fiberglass seats — No. T712 Satin Chrome, or No. T718 Bronzite
And
One Frame Assembly

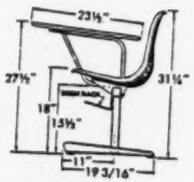
No. T492 free standing leg - Satin Chrome
OR
No. T498 free standing leg - Bronzite



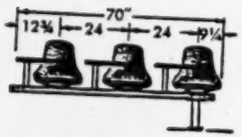
ST-UNIT
3 Passenger Starter Unit

Includes 3 Howeltex textured fiberglass seats — No. T712 Satin Chrome, or No. T718 Bronzite
And
One Frame Assembly

No. T392 free standing leg - Satin Chrome
OR
No. T398 free standing leg - Bronzite



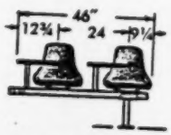
SIDE ELEVATION



UT-UNIT
3 Passenger Add-On Unit

Includes 3 Howeltex textured fiberglass seats — No. T712 Satin Chrome, or No. T718 Bronzite
And
One Frame Assembly

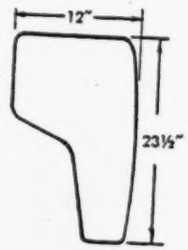
No. T592 free standing leg - Satin Chrome
OR
No. T598 free standing leg - Bronzite



TT-UNIT
2 Passenger Add-On Unit

Includes 2 Howeltex textured fiberglass seats — No. T712 Satin Chrome, or No. T728 Bronzite
And
One Frame Assembly

No. T292 free standing leg - Satin Chrome
OR
No. T298 free standing leg - Bronzite

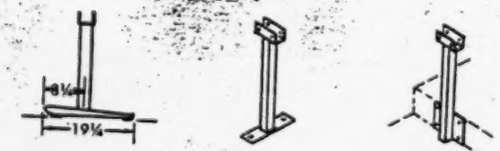


ARM DETAIL

Imperial Walnut laminated plastic surface.

NOTE:
Left hand units may be obtained. Contact factory for information.

LEG DETAIL



FREE STANDING

FLOOR MOUNT

RISER MOUNT

(Supplied only after factory approval of architectural specifications.)

OPTIONAL BOOK RACK
No. M912 Satin Chrome

SEAT COLORS: T712 or T718 seat is available in choice of Howeltex textured fiberglass colors shown on page 22 in this catalog.

and Las Vegas.

Q And is the tour coach type of pedestal and seat of the tour coach variety made by National Seating installed in the Greyhound bus shown on the top of Defendant's Exhibit SQ?

A Yes; shown in the upper right-hand corner of SZ.

Q Have you had a chance to read and are you familiar with the Barecki patent in suit?

A Yes.

Q Is there anything in the Barecki patent in suit that you could compare to the upright 15 in the tour coach pedestal?

A 15 -- the column upright here compares to the 15 operating column on SZ.

Q And why do you say that?

A They are both upright columns, and they support the seat.

Q With respect to the plates 16-A on the tour coach pedestal shown on Defendant's Exhibit SZ, is there any comparison you could make between that and anything in the Barecki patent, Plaintiff's Exhibit 170?

A In the bottom of the foot on 170 there is a flat supporting plate, and the one on 16-A of SZ is a flat supporting plate.

Q What functions are those flat supporting plates providing from both Defendant's Exhibit SZ and 170?
A They fasten the seat to the floor and transmit the loads from the seat to the floor.
Q One plate, 16-A, is round; whereas, the plate, 16-A in the Barecki patent, Plaintiff's Exhibit 170, is rectangular. Does that make any difference, sir?
A Not for the function it does.
Q Why not?
A They both transmit the load on the floor, and they both screw the bolt of the seat to the floor.
Q Why was the base plate 16-A in the tour coach pedestal round?
A Because the same pedestal was used for some of the revolving chairs, and every direction the chair turned the pedestal was still the same.
Q Why were the pedestals positioned where they were relative to the seats other than at the center or mid-passenger position in the tour coach?
A That is where the coach -- built the structure in the coach to take the seat mountings.
Q And with respect to the four holes 19-A provided in the tour coach pedestal, why were they provided where

they were?
A Because the revolving seats were turned around so the loads could be distributed equally around the pedestal.
Q What was the mounting pattern provided in the tour coach for the seats?
A Well, they had plates in the floor to mount these on, so the areas in the floor -- there were four bolts rather than two.
Q With respect to the gussets 16-B in Defendant's Exhibit SZ as used on the tour coach, can any comparison be made between that structure and any structure in Plaintiff's Exhibit 170?
A Well, basically the gusset 16-B in SZ does the same function as the sidewall of the tube in the front of 16.
Q What is your basis for saying that?
A They both transmit the loads from the center pedestal vertical column to the floor mounting holes.
Q What function if any do those plates have relative to the floor plates itself, 16-A, in both?
A They also support the cover and transmit the vertical loads, the bending loads off the plate.
Q Now, with respect to the covers 20 shown on the tour coach pedestal, Defendant's Exhibit SZ, can that be

compared to any structure in the Barecki patent, Plaintiff's Exhibit 170?

A Well, the covers 20 are equivalent to the cover 20 on the Barecki patent.

Q Why do you say that?

A They both cover the bolts and conceal the fastener and prevent the moisture and dirt from accumulating around the bolts.

Q Now, with respect to the position of the pedestal in the tour coach, Defendant's Exhibit SZ, did that provide an aisle that was free of legs?

A Yes.

Q Did that provide an aisle that had a nice clean appearance when you looked down it?

A Yes.

Q Did the pedestal that is positioned in the tour coach of Defendant's Exhibit SZ also provide more leg room?

A Yes.

MR. HENEVELD: Objection; leading.

THE COURT: Overruled. The answer shall remain.

Q With respect to Defendant's Exhibit SZ, is there any comparison you can make between that and Plaintiff's Exhibit 170 with respect to cleaning and maintenance?

CUSHION AND BACK

Vinyl-covered cushion is of coil spring construction with polyurethane padding; optional full-depth polyurethane Amerfoam®. Spring clips attach cushion to seat frame. Cushion upholstery can be simply removed for ease of cover replacement./ Vinyl upholstered Amerfoam® back pad optionally bucketed and/or divided, is attached to plywood inner panel, with outer back panel of anodized patterned aluminum. Outer panel perimeter is hemmed to eliminate cutting hazards. / Vinyl upholstery available in wide range of colors suitable for today's coach interiors.

FRAME

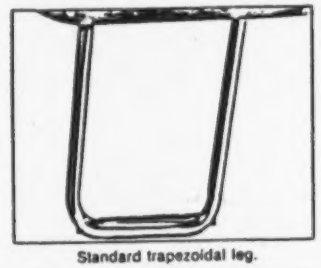
Frame structure is 1" O.D. 16 gauge carbon steel with internal electrunite reinforcement (alternate 1" O.D. 18 gauge stainless steel). Trapezoidal leg or aisle legs of carbon steel tubing with die formed footpads./ Grabrail is stainless steel 1" tubing./ Portions of frame that are not stainless steel are finished in oven-baked enamel./ The passenger seat frame and its supporting structure are constructed and mounted in such a manner that sweeping and cleaning is reduced to a minimum. Special attention has been given to elimination of dirt-catching pockets.

With optional inverted "T" pedestal. Single inverted "T" pedestal of 2" square 14 gauge carbon steel is anchored to the floor in a concealed manner.

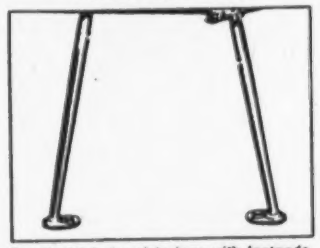
With optional round flared pedestal. Single round flared pedestal of ductile iron with stainless steel cover plates is anchored to the floor in a concealed manner.

Dimensions, options and materials subject to change without notice.

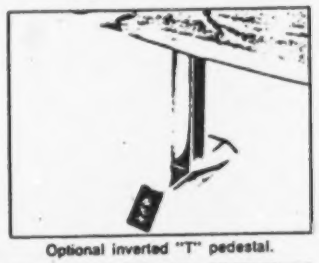
TRANSIT SEAT Model 6426 CONSTRUCTION DETAILS AND FEATURES



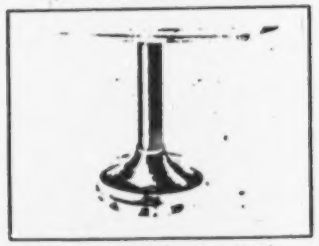
Standard trapezoidal leg.



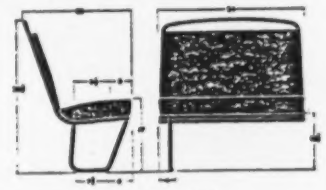
Standard tubular aisle legs with footpads.



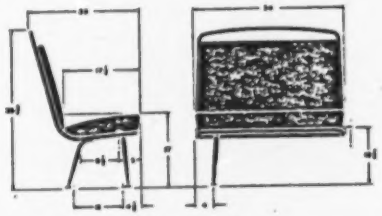
Optional inverted "T" pedestal.



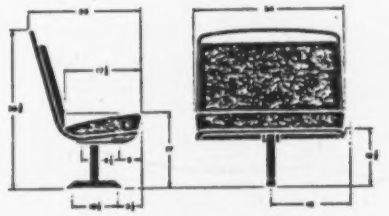
Optional round flared pedestal.



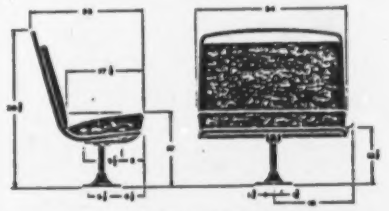
Model 6426 Seat



Model 6426 Seat



Model 6426T Seat



Model 6426R Seat

for the Environment of Excellence AMERICAN SEATING

GRAND RAPIDS, MICHIGAN 49504

Form No. 8120-13

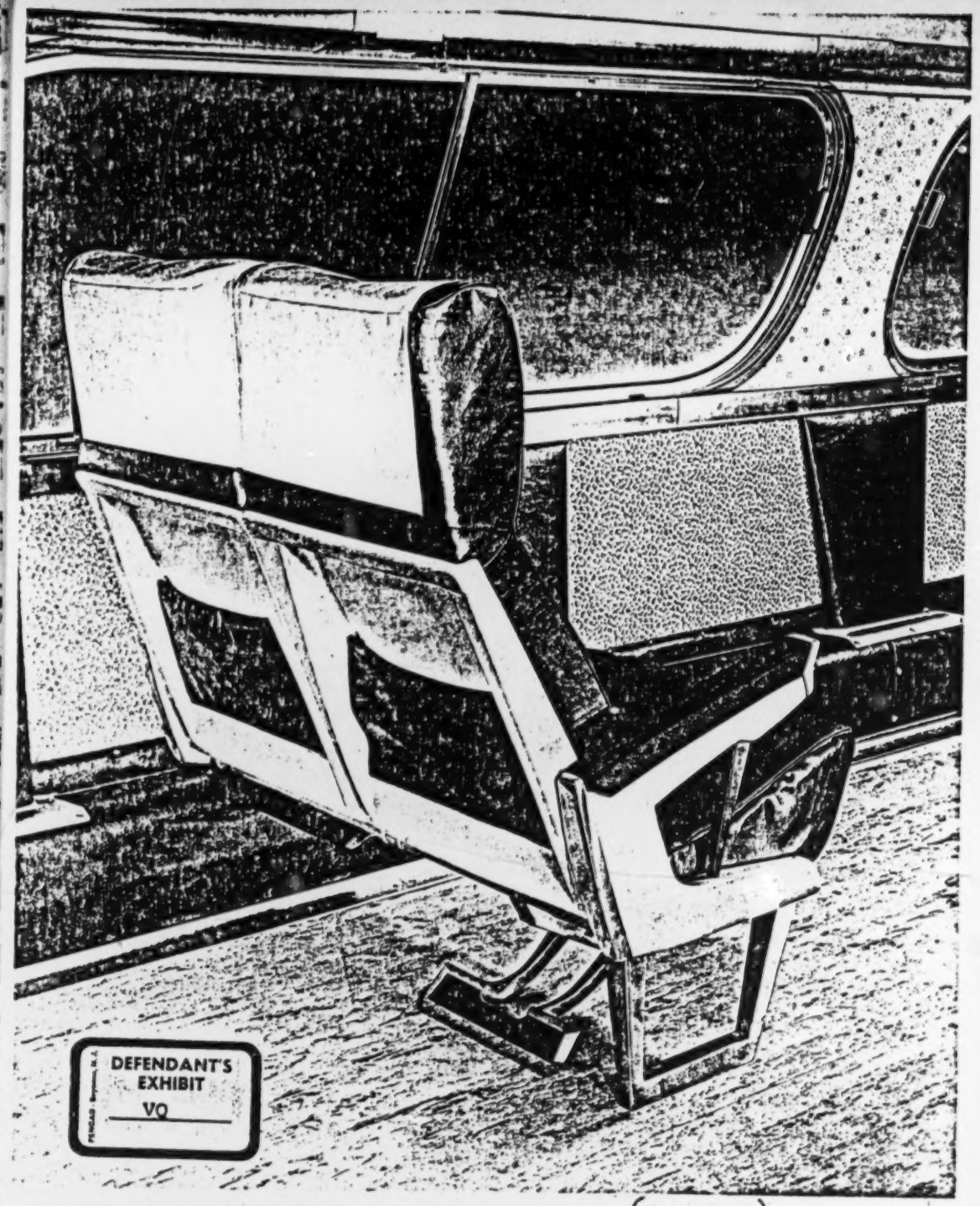
Litho in U.S.A.

Further, this is accomplished with a central pedestal, as distinguished from front and rear legs as shown in Barecki patent 3,383,835 (which is not, of course, a semi-cantilever construction) or an elongated mounting extending front to rear such as shown in the embodiment of FIGS. 4 and 5 of the Davis, et al reference.

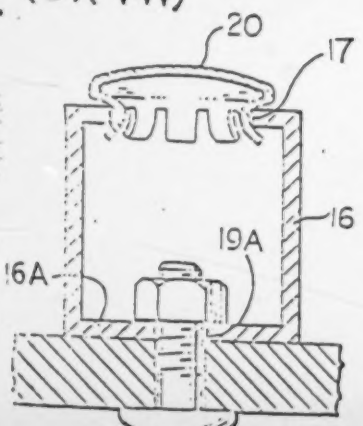
The advantages of such a construction are apparent: ingress and egress of passengers in both seats is greatly facilitated. Seating comfort is enhanced because of the greater leg room and lack of obstruction, additional space is provided for storage of bulky objects, the aisle is free of foot obstruction, the appearance of the vehicle looking down the aisle is enhanced, etc.

At the same time, even though there are substantial advantages, there are difficult engineering problems faced. The weight of the passenger sitting in the aisle-side seat must be supported in fully cantilever fashion. This weight not only tends to bend the front and rear stretchers, but it has a tendency to bend the back frame portion if it is integral with the seat frame (which it is), and it has a tendency to twist the seat frame because a torque is applied to the front and rear stretchers.

In order to overcome these stresses, the present invention provides a combination which includes the following elements: cross frame members 25 are connected at laterally spaced central positions between the front and rear stretchers to resist parallelogram twisting forces. Further, these



(DX VW)

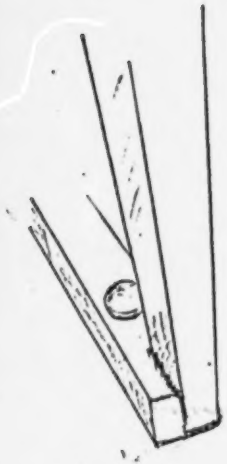


AMERICAN SEATING COMPANY V.
NATIONAL SEATING COMPANY

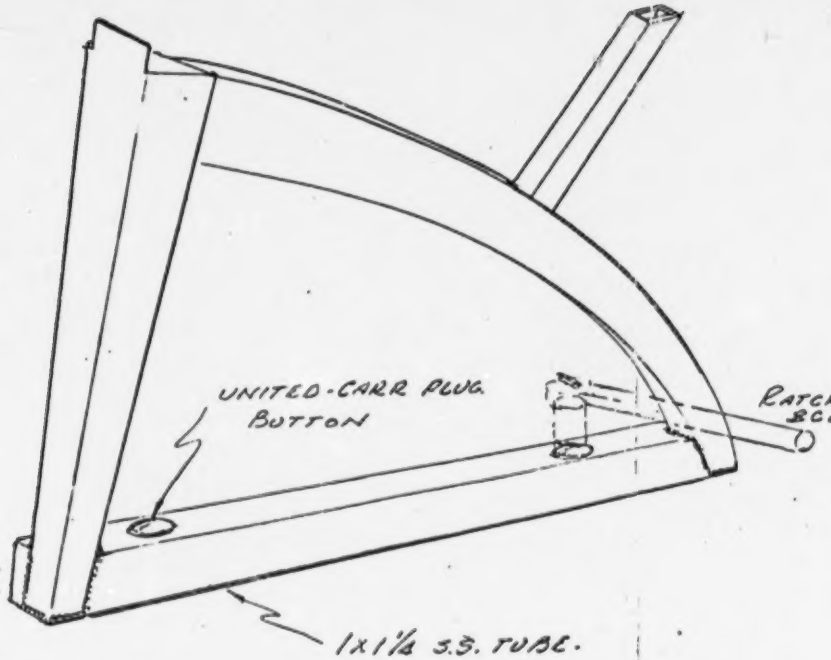
CIVIL ACTION NO. C75-63-A

DEFENDANT'S EXHIBIT FJ

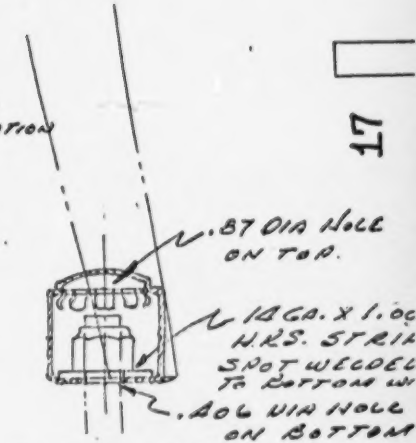
17



INSIDE VIEW
LEG & CROSS RAIL JOINT
TYPICAL FRONT & REAR
RAIL & LEG WELDED ALL
AROUND - GROUND FLUSH.



AISLE SIDE VIEW OF LEG



TYPICAL SECTION
THRU BOLT HOLES.

ITEM	PART NO.	DESCRIPTION
		PARTS LIST

SYM	CHANGE	DATE	BY	NEXT ASSEMBLY

TOLERANCES
DECIMALS FRACTIONS
.X = ±.1 ±1/16
.XX = ±.03 ANGULAR
.XXX = ±.010 ±1°30'

SCALE —
DATE 7-11-67
DRAWN
CHECK

DO NOT SCALE

TITLE PROPOSED AISLE LEG GH.

PART NO. SK322

NATIONAL SEATING CO. MANSFIELD, OHIO

which supports the seat in the wall side of the seat, so it sets level.

Q Now, with respect to looking at the seat pictured in Defendant's Exhibit DJ, does it appear that the top caps that are 20 in your sketch are on that?

A No.

MR. HENEVELD: Objection. It is leading.

THE COURT: It is leading. The answer shall remain though.

Q How can you tell that?

A You can see the slots with the screw bolts in.

Q Now, was the seat of the type Defendant's Exhibit VQ ever made by National Seating on a commercial production type basis?

A Not the one that is on VQ, no.

Q Why not, sir?

A Because this was the prototype, and the final production ended up with a die casting pedestal.

Q Why was that?

A Economics.

Q And why, if you recall, would it be economical to do it one way than the other?

A Well, stainless steel is a lot more expensive than aluminum die casting.

MR. LYON: Are you instructing him not to answer?

MR. HENEVELD: No, that is the objection.

MR. LYON: Would you answer the question, please?

A I am assuming it is a standard GM fastener.

Q You did testify, did you not, that this is a picture of a National Seating transit seat that you recall them making?

A Yes.

Q And you did testify, did you not, that what is pictured in Defendant's Exhibit "DG" and "DH" was a picture of those National Seating transit seats in a bus?

A Coach interior.

Q Did you ever personally see the transit seats pictured in Defendant's Exhibit "DG"?

A Actual seats? Not that I recall.

Q I will hand you now what I have just had marked as Defendant's Exhibit "DJ," and ask if you can identify that?

A This is a brochure on the model 1020 National seat.

Q How can you be so sure that it is the 1020 National seat

A It is identified as such.

Q Do you recall ever having seen the 1020 seat as it is pictured in that particular exhibit?

A No, I don't.

Q With respect to Defendant's Exhibit "DJ," do you have any idea or recollection as to how that particular brochure got into the competitors file that is entitled "National Seating Company"?

A I don't know, other than my predecessor's name is on it.

Q Do you have any recollection of having seen that brochure, Defendant's Exhibit "DJ," prior to today?

A Yes.

Q Do you recall when you saw it?

A Not specifically, sometime in the past.

Q Prior to 1970 did you see this brochure, Defendant's Exhibit "DJ"?

A I may have.

Q Are there other identical brochures to Defendant's Exhibit "DJ" in the competitors file entitled National Seating?

A Do you want me to go through them?

Q Yes.

A There is a total of three.

Q The other two are identical in all respects to Defendant's Exhibit "DJ"?

A The brochures appear to be.

Q Is there a date stamp appearing on any of the three brochures, Defendant's Exhibit "DJ"?

A There are no date stamps.

(Defendant's Exhibit DK was marked by the reporter.)

Q I will hand you what has been marked as Defendant's Exhibit "DK," could you identify that for me, please?

A It is a National Seating seat catalogue. It appears to be their line of seats for that particular year.

Q Is there a date appearing in that catalogue to indicate what year the models are for National Seating?

A There is a title page that states the "Presents" for 1965.

Q Can you tell from that brochure, Defendant's Exhibit "DK," when it was received by American Seating Company?

A No, I can not.

Q Referring to the first couple of pages in that brochure, are you familiar with the model number 1029 pictured in Defendant's Exhibit "DK"?

A I recognize it as a National seat.

Q Do you recognize the leg structure pictured in the

pedestals.

Q And this was during a period of what? -- 1969? Did you begin as early as 1969?

A No. It was basically done in the middle of 1970. That is when I had the request the first time to think about a seat with a center pedestal under the chair.

Q And from this time, from 1970 until 1972, when you actually put out a model, you had many attempts to design a center pedestal; is that correct?

A No. There wasn't many attempts. I was just making -- but that wouldn't be economical to manufacture, and there was never any definite manufacturing decision to go that way.

Q The economics are an important factor in the building of transit seats?

A Very much so.

Q Why is that?

A Well, everything is built against a price.

Q So in some instances you may have a pretty good design, but you can't manufacture it because it is too costly; is that correct?

A Right.

Q And you are always searching for better designs but within the cost parameters?

A Right.

Q And that is what you were doing during 1970 to 1972; is that correct?

A Off and on, yes.

Q And finally you found one, didn't you?

A Oh, we finally settled on one, yes.

Q What was that?

A That was the tubular columns copied from the Mitchell table.

Q Like that shown in this courtroom which has been identified as Defendant's Exhibit SY?

A That was the final version of it, yes.

Q What are the dates of CF-1 to -25?

A They run from June, 1970, and I am not quite sure when the other ones are. They all run approximately within a month of one another.

Q And you say that you completed your present design sometime in September, 1972?

A Right.

Q And that is two years ago and three months; isn't it?

A I suppose so.

Q All this time you have been looking for a design that you can make at a price that you can sell?

A No. This project was brought up and started by

management and stopped by management, and I went on to other things, and management would bring it up again and drop it again and bring it up again and drop it again.

Q And the last time it was dropped -- it was started up was because of one reason?

A I don't know why it was started up again. I had the request to make the seats for NAMBO, so that is what I made -- with center pedestals.

Q You didn't know anything about American Seating even having a center pedestal?

A No, I did not.

Q In fact I think you testified that you didn't even really have any goal in mind except to get a center pedestal period; is that all?

A Basically my request -- the request I had was to produce a seat with a center pedestal, and that is all I had to worry about.

Q You don't recall the person who gave you the spark?

A No, sir, I do not.

Q That is what it was, wasn't it, the "spark" that caused you to think of using an inverted T?

A The T pedestal, the Mitchell table, had been around for 10 years, and I had seen it and really not paid

that much attention to it in relation to this seat until such time as somebody made a remark, why didn't they do anything like this, that they made a cheap pedestal, so that is what I did.

Q Answer the question. That is the spark that started you off?

A If you want to refer to it as that, yes.

Q Now, could you draw on the board here where that Mitchell table is located?

A Our department is like this. This is the Sales Office and this is Engineering (indicating).

Q Why not draw it first, and then you can testify about it.

A O.K. Let's see. The Mitchell table sits right here along this wall (indicating), and this is the drafting department, and these are offices, and these are offices along here, and our department is over in here (indicating).

Q Now, that is the outline of the portion of your offices, the engineering offices?

A Yes.

Q Now, would you state where the entrance to the building is.

A The entrance to the building is over here (indicating).

upright, the chair frame, and the seat, completed by National Seating?

A Yes; it was ready to go for the show.

Q During the design and development of the seat shown on Defendant's Exhibit BK were you aware of an American Seating seat with a pedestal?

A No.

Q During the design and development of the seat shown on Defendant's Exhibit BK had you seen any advertisement of American Seating with respect to a pedestal?

A No.

Q I show you Plaintiff's Exhibit 63, including two documents. Would you review those, sir.

(After an interval.)

A Yes.

Q During the design and development of what is shown on Defendant's Exhibit BK did you see Plaintiff's Exhibit 63?

A No.

Q During the design and development of what is shown on Defendant's Exhibit BK were you told by anybody at National Seating about an American Seating seat with a pedestal?

A No.

Q During the design and development of what is shown on Defendant's Exhibit BK were you told anything about an American Seating seat with a pedestal by somebody outside of National Seating?

A No.

Q During the design and development of the pedestal as shown in Defendant's Exhibit BK have you ever seen an actual seating drawing with a seat pedestal?

A No.

Q During the design and development of the seat shown on Defendant's Exhibit BK were you ever told what kind of a profile to make for the pedestal?

A No.

Q Were you ever told what the construction of the pedestal was to be?

A No.

Q During the design and development of what is shown on Defendant's Exhibit BK had you seen an actual product of American Seating with a pedestal?

A No.

Q Did you in any way, shape, manner, or form, during the design and development of what is shown on Defendant's Exhibit BK, copy an American Seating

product with a pedestal?

A No.

Q Then how did you design the pedestal?

A I just used the logical program of engineering. It was just that they wanted a very simple pedestal, and this is what came of it.

Q With respect to that pedestal as shown on Defendant's Exhibit BK, did you think you had developed anything new?

A No.

Q Why not?

A Because it is a very common application of legs as shown by the Mitchell table.

Q I hand you Plaintiff's Exhibit 6 and Defendant's Exhibit BM. First, could you tell me what Defendant's Exhibit BM is?

A Defendant's Exhibit BM is the engineering assembly drawing, the pedestal itself.

Q Is this the pedestal now being manufactured by National Seating Company?

A Yes.

Q And in the context of Defendant's Exhibit BM and Plaintiff's Exhibit 6, could you describe please the construction of that pedestal.

with pedestal, did the Mitchell Manufacturing table ever come up?

A Yes. During the time that the pedestal was in the design stage -- and I was getting kind of fed up with some of the complaints about the different designs I had made, because I don't have the final say on any of the designing of it -- the Mitchell table -- somebody made a crack that, "Why don't you make a pedestal like on the Mitchell table in there."

Q Now, was there actually a table in National Seating's possession?

A Yes. We have a reference table in the Engineering Department that is a Mitchell table.

Q And approximately, sir, how long has that table been in National Seating's possession?

A It has been in the Engineering Department four or five years, and it probably has been in National Seating for 10 years.

Q Now, with respect to what is shown in Defendant's Exhibit AT, does that accurately reflect the type of table that was in the possession of the Engineering Department?

A Yes. That is the Mitchell table. It is the patent drawing.

Q Referring to the bottom sketch of Defendant's Exhibit SZ, could you describe for me what that is, sir?

A Well, the Mitchell table has a vertical column, Item 15, and the foot which is Item 16, and a cap on the end, which is Item 20.

Q What is the cross sectional shape of the upright 15 and the foot 16?

A They are both rectangular

Q What is the cross sectional shape of those two?

A They form a T.

Q What is the cross section of the member itself?

A They were rectangular -- tubular.

Q With respect to what is shown as 20 on the bottom of Defendant's Exhibit SZ, what is that little plastic end cap that is shown off the end of the tube? How is that held in place?

A With a screw. There is a hole in the bottom of the cap, a countersunk hole, and screws through the 19-A hole.

Q When you say you refer to the Mitchell table, what did you do then?

A Went back and did a little thinking about it, the loading, and so forth, and went out to the shop to see if I could find some tubing about the size we

would need to produce it for the loads that were involved, and I found a piece of 2-inch square carbon steel tubing that I brought back and built up some samples out of.

Q How would the Mitchell table with its support form relate in any way to the transportation seat?

A It would be the same. It transmitted the load that is on the top to the bottom of the floor.

Q Do you remember who mentioned the Mitchell table to you?

A I haven't the slightest idea. I inquired, but I haven't been able to find anybody that knows about it.

Q Referring to Defendant's Exhibit CG, can you tell me what that is?

A Those are photographs taken of the actual Mitchell table.

Q Are those photographs taken at National Seating?

A These were taken at National Seating.

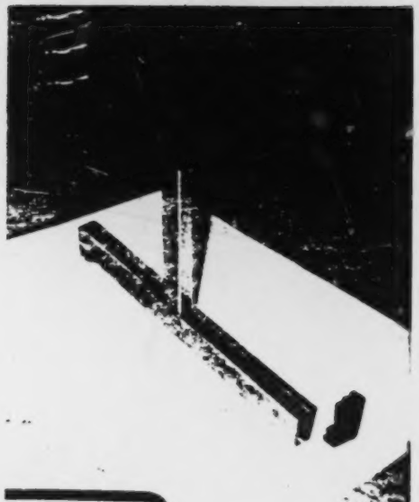
Q Were they taken of the actual table that you reviewed?

A Yes.

Q I refer you now to Defendant's Exhibit BK. Can you tell me what that is, sir?

A That is the engineering layout of the final location of the seat pedestal on the 1070 chair.

PLAINTIFF'S EXHIBIT



AINTIFF'S EXHIBIT

PLAINTIFF'S

32

United States Patent Office

Des. 198,218
Patented May 19, 1964

198,218

TABLE

Robert O. Blink, Milwaukee, Wis., assignor to Mitchell Manufacturing Company, Milwaukee, Wisc, a corporation of Wisconsin

Filed Dec. 5, 1963, Ser. No. 77,685

Term of patent 7 years

(Cl. D33—14)

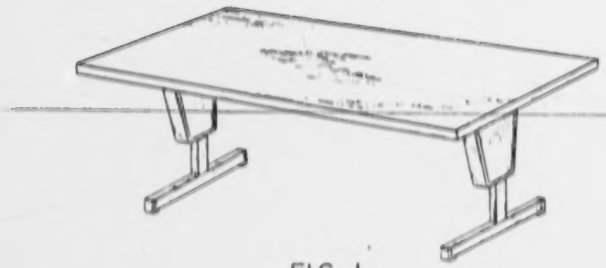


FIG. 1

FIG. 2

FIG. 1 is a perspective view of a table showing my new design; and

FIG. 2 is an elevational view of one of the two identical ends.

I claim:

The ornamental design for a table, substantially as shown.

References Cited in the file of this patent

UNITED STATES PATENTS

D. 196,593 Walz ..... Oct. 15, 1963

OTHER REFERENCES

Office Appliances, September 1959, page 189, left center table, Barricks adv.

33

the Depression of the early '30's.

Q What was your major?

A Business Administration.

Q Did you graduate?

A No, sir.

Q What did you do upon leaving Penn State?

A I went to work for the Liquor Control Board of the State of Pennsylvania for 10 years.

Q What did you do then?

A Then I went to work with Heywood-Wakefield Company in the early '40's.

Q Can you tell me what the Heywood-Wakefield Company is and what they do?

A Well, the Heywood-Wakefield Company is a manufacturer of household furniture and public seating furniture and transportation type seating furniture, and I guess that pretty much covers the scope of their manufacturing.

Q What were your responsibilities with Heywood-Wakefield over the years, just briefly?

A I began with them as an Inspector and went up through Project Engineer in Specialty Products, and from there as Assistant Sales Manager for the Transportation Seating Division, and then to Sales Manager, and then

that is round (indicating), but outside of that, I can't see any variation.

Q With respect to your tenure at Heywood-Wakefield Company and the various positions that you held, what does the term "transit" mean?

A Well, transit has to do with the transportation of passengers in urban areas; in other words, no long hauls -- short runs; and it primarily included a more austere type seating that you would not find in the longer run buses; that is, straight backs and closer centers, and probably as much as 10 percent more seating in the vehicle than there would be in the other type.

Q Were they generally fixed back seats that were referred to as transit seats?

A Yes.

Q Were you at all involved in a project called the Plain-Mate Seat?

A Yes.

Q And can you tell me, sir, what your involvement was in that particular program?

A Well, I believe this was in early '68, that the Budd Company contacted me and said that they had plans to develop what was previously their mobile lounge that

they had provided to the Dullis Airport some five or six years ago, and they were interested in building another vehicle which was less costly and would accomplish the same end, and would we be interested in working with them on seating, which we did, and spent a better part of a year designing the seats and working out with their Engineering Division to accomplish that end.

Q What was your specific function in the Plane-Mate Project?

A I was selling the seats to them.

Q Where were you residing at that time?

A In Newport, Tennessee.

Q What company was responsible for designing the seats and the pedestals that went into the Plane-Mate Mobile Lounge?

A Heywood-Wakefield Company.

Q I refer you to Defendant's Exhibit RX. Could you tell me what that document is, please.

A That was a preliminary design of a pedestal. We worked on a number of different designs because we were withheld to both weight and cost in this, and we were attempting to get the cheapest -- maybe "the most economical" is a better way to put it -- and the

lightest type seat that we could.

Q Now, would you just refer briefly to Defendant's Exhibit RX and describe the overall structure involved in that drawing.

A Well, it is tubular frame construction where the passenger sets with a urethane cushion in back, and both are fixed, and there is a boxlike structure which holds the frames, and they are supported at various intervals with pedestals which are bolted to the floor of the bus, as they called the vehicle.

Q And when you say "boxlike structure supporting the seats," can you show me what you are referring to?

A Right there (indicating).

Q Right here (indicating)?

A Yes.

Q And is that also shown in the front view?

A Yes, it is. It is a welded structure. It is a channel.

Q And what is the date on that drawing?

A April 1st, 1969.

Q Is the dating system on the drawing different than what we commonly use in the United States?

A Yes. The Canadians reverse their dating system.

Q Now, with respect to the drawing, Defendant's Exhibit RX, what was done with that in terms of the Budd

Company and Heywood-Wakefield's interest -- involvement?

A You mean this particular pedestal?

Q Yes.

A Well, it was discarded as far as I recall.

Q What was the reason?

A Because of the weight factor. Well, that was one factor. Probably the greatest -- I am not sure about the cost situation -- but I am sure the weight factor was the greatest factor, and for that reason we went into another pedestal. This was still this construction.

Q Was the structure above the pedestal as shown in Defendant's Exhibit RX pretty much adopted as shown there?

A As far as I can see, it is exactly what they used.

Q I refer you now to Defendant's Exhibit CM. Can you tell me what that is, sir?

A That is the pedestal that is now being used, or was being used when I was involved with it, with the Plain-Mate program.

Q What is the date on that particular drawing?

A The original drawing date appears to be 6-6-69, and revised to be brought up to date to reduce weight

12-2-69 -- I get confused with these dates.

Q Now, with respect to the drawing, Defendant's Exhibit CM, could you describe for me just generally what the structure is that is disclosed on that drawing?

A Well, it is a match metal mold, aluminum casting with feet and a rectangular upright which supports the pads on the top which holds the box section of the seat on the passenger seats.

The feet have two tabs at either end which are drilled out to accept bolts which go through to the floor, and they are faced off here (indicating) to be at both ends here (indicating), to give you a flat seat on this floor of the vehicle.

Q Where were the fasteners for the floor actually received in the two ends? Could you show that to me?

A They go down through this aperture, and from this aperture down into the floor, and attached to the hatch section.

Q Where is the head of the fastener received?

A Down through, underneath the section here (indicating) so that it does not protrude.

Q And are those fasteners in any way covered?

A Yes. There is a little gimmick that goes in the top that completely encloses the situation.

Q Is that what is spelled out in the lower right-hand corner?

A That is right. That is a small drawing which apparently you don't have, but that is a drawing because it is an S. drawing, and that is a small drawing.

Q I refer you to Defendant's Exhibit CN. Can you tell me what that is?

A Well, that is the plug with this little fastener that fits in there and becomes tight and holds tight into the vehicle.

Q And where does this plug go, and what is its purpose?

A It goes down into the aperture here (indicating) and hides the top of the bolt.

Q Now, during the design and development of the pedestal shown on Defendant's Exhibit CM, what manufacturing techniques were considered by the Heywood-Wakefield Company to make this particular pedestal?

A Well --

MR. VAN DYKE: It is leading. I object. He hasn't established there were different techniques.

THE COURT: The objection is sustained.

Q Did Heywood-Wakefield Company consider more than one

manufacturing technique for the type of pedestal shown on Defendant's Exhibit CM?

A Yes.

Q And can you tell me what type of technique or types of techniques were considered by Heywood-Wakefield?

A Well, a tubular pedestal was considered, but because of the fact that it would have to have been stainless steel and the weight factor, it was thrown out.

Q When you say, "tubular type of pedestal," can you describe what you mean by that?

A Well, it would be fabricated from tubing, either square or round. I can't recall at the present time whether we went to either type or which type, but I believe -- I think we started with the square type and found that it was just too expensive and too weighty.

Q Can you explain the cost factor to me between a casting and a fabricated pedestal?

A Well, the cost factors -- and I am not a cost accountant or expert at that, but as far as I can see, with the volume involved, a casting pedestal would be cast with a match mold in aluminum, and we found it would be less costly and considerably less weighty and would accomplish exactly what we wanted, and

that is why we went to it.

MR. VAN DYKE: I move that the answer be stricken. The man testified he is not a cost expert, and yet he is giving an opinion as to cost factors.

THE COURT: The answer shall remain.

Q Were you aware of those cost considerations in your dealings as a representative of the Heywood-Wakefield Company?

A Yes.

Q What kind of projections was the Budd Company giving as to the type of volume that this seat would have for Plane-Mate lounges?

A Well, the Sales Department there did most of the --

MR. VAN DYKE: I object to the leading form of the questioning. There is no foundation.

THE COURT: The objection will be sustained.

Q Did the Budd Company provide any projections as to the number of pedestals that could be expected for this project in your relationships with them?

A They provided us with what they expected to sell in numbers of Plane-Mates.

Q And can you tell me what that was?

A Well, they told us to gear up for production for as many as six per week.

Q Six units per week?

A Six Plane-Mates. There are 30 pedestals for a Plane-Mate.

Q Did that factor have anything to do with what kind of manufacturing process was chosen?

A Yes.

Q And what did it have to do?

A For that reason we decided we would spend the money for the match metal molds.

Q I show you the bottom sketch on Defendant's Exhibit TA. Does that sketch accurately reflect the pedestal shown on Defendant's Exhibit CM?

A I believe so, yes.

Q Now, what use if any was made of the drawing, Defendant's Exhibit CM?

A I beg your pardon?

Q What use if any was made of the drawing, Defendant's Exhibit CM, by Heywood-Wakefield and/or Budd?

A Well, it was used to manufacture for the Plane-Mate.

Q And when did the manufacturing for the Plane-Mate begin with respect to the drawing, Defendant's Exhibit CM?

A The first production of the pedestals was the early part of 1969.

Q Were pedestals actually shipped to the Budd Company in 1969 for installation in a mobile lounge?

A Yes, sir.

Q And how do you happen to recall that pedestals were shipped in 1969 to the Budd Company for installation in a mobile lounge?

A Well, the Budd Company made an open house showing to the airports, port authorities, and aircraft manufacturers, as well as airplane companies, to view this vehicle at Port Washington, Pennsylvania, in November of 1969.

Q And how do you happen to recall that the open house was in November of 1969?

A Well, I have records of it in my expense accounts, that I attended it, and I have a note in my memo books that I was to attend it.

Q And do you recall actually attending that?

A Yes. As a matter of fact, the first date that they had set up for the open house was the early -- the first week in November, and when I got there they had to set it back a week.

Q And at that open house was this Plane-Mate seating

with the pedestals of the type shown on Defendant's Exhibit CM demonstrated?

A Yes, it was. It was a part of the vehicle.

Q And who attended that open house?

A Well, officials of port authorities and aircraft companies and airports and airplane companies.

Q Were the pedestals that were installed in that particular vehicle and shown in November of 1969 built and paid for to the best of your knowledge?

A As far as I am concerned, they were.

Q Would you refer to Defendant's Exhibit TI, please. Are you familiar with that document?

A Yes.

Q Can you tell me what it is, sir?

A It is a quotation to Bowden McLaughlin York Company on seating for this Plane-Mate. They were bidding to manufacture the Plane-Mate for the Budd Company.

Q Would those have been for the showing in November of 1969, or for something else?

A No. This was for the production models.

Q And were the pedestals of the type shown in Defendant's Exhibit CM on sale for production purposes as of --

A Yes; they were.

Q And what is the date of this letter?
A August 4, 1969.
Q And those pedestals that were quoted in the letter of August 4, 1969, would be pedestals of the type shown in Defendant's Exhibit TA and Defendant's Exhibit CM?
A CM, yes.
Q What was done with this mobile lounge that was shown in Philadelphia in November of 1969, to your knowledge?
A It was sent to the Kennedy Airport to facilitate the handling of the foreign aircraft at the international end of the airport, and as far as I know it was there for about three years, until they got their own -- I think they bought in the neighborhood of 20 some Plane-Mates.
Q I also refer you to Defendant's Exhibit TJ and Defendant's Exhibit TK. Can you tell me what those are, sir?

MR. HENEVELD: May I have that again, Mr. Lyon?

MR. LYON: TK and TJ.

A TJ is a letter from Mr. Labaree, who was the engineer in charge of the project of the Budd Company, to the Heywood-Wakefield Company, advising them of modifications that had to be made and changes in color schemes,

and so forth, and also the fact that they needed some sets of drawings.
Q And how about TK; can you just briefly tell me what that is?
A Well, that is a letter written to me from the manufacturer of the Heywood-Wakefield Company, really, advising me that they had received an order for 10 sets of the Plane-Mate seats.
Q What do these two documents relate to, TJ and TK?
A Exactly the same seating, the same pedestals.
Q As relates to subsequent sales by --
A Absolutely the same.
Q I refer you to Defendant's Exhibit CL. Can you tell me what that is?
A Well, that is a brochure that the Budd Company puts out for this particular prototype that I referred to previously, and that is -- that was put out to attempt to sell the vehicle.
Q Do you have any knowledge as to when this particular brochure was put out?
A No, I don't, definitely.
Q Are the seats that are shown in this brochure the Plane-Mate seats with the pedestal that we have been discussing in this context of the exhibits identified

through you?

A Yes; they are.

Q I refer you to the seventh page of that brochure. Does this show the general seating pattern used?

A Yes. It gives you the one side of the vehicle.

Q And does it show the pedestal in use of the type shown on Defendant's Exhibit TA?

A Yes, it does.

MR. LYON: May I have just a moment, your Honor?

THE COURT: Yes.

(After an interval.)

MR. LYON: I have no further questions.

I would like to offer Defendant's Exhibit DT.

THE COURT: Excuse me just a minute. DT shall be received.

MR. LYON: DU.

THE COURT: DU shall be received.

MR. LYON: RX.

MR. HENEVELD: Name those again, please.

MR. LYON: RX.

MR. HENEVELD: And what else?

AMERICAN SEATING COMPANY V.
NATIONAL SEATING COMPANY

CIVIL ACTION NO. C75-63-A

DEFENDANT'S EXHIBIT CL

The Magic

64

500?4?

THE PASSENGER CABIN of Plane-Mate is designed to handle up to 150 passengers. Seats are extra-wide and passengers may stow carry-on luggage under each seat. For standees, a bar extends the length of the cabin on either aisle. The cabin is climate-controlled for year-round passenger comfort, floors are carpeted and surfaces are of high impact-resistant plastic for rugged wear and ease of maintenance. Interiors are designed to the specifications of each airline.

322 anything of that nature. This is the art of making a seat. This is usually the way a seat is made.

I think anyone that knows will immediately know how this is made. That teaches it.

Q So what you are saying is that tubes are equivalent to channels are equivalent to I-beams are equivalent to H-beams? You just do a little experimenting and you make them all do the same thing?

A Yes. You vary the selections by selecting the proper wall section or section modulus, which can be calculated, and you can utilize various sections.

Q What is the construction of the seats, 11 and 12?

A In this case it is a plastic shell.

Q And all it shows is the style of the shell? It doesn't give any details, does it?

A No; but it refers to it as part of the seat structure, because again this can be varied.

Q That shell wasn't even designed by you, was it?

A It wasn't designed by me. It was designed by someone else, but I designed the configuration.

Q All that is shown is the styling?

A No. It shows the configuration. It is a bucket seat with flanges, and it shows the ribs on the back of it, how the bucket can be made.

CLAIMS

1. A single pedestal transit chair adapted to be secured to the floor and side wall of a vehicle, comprising a cross beam, a rail carried by said cross beam for attachment to a vehicle side wall, a pair of seats mounted upon said bottom in side-by-side relation, a pedestal extending downwardly from a mid-portion of said beam and provided at its bottom with a hollow elongated foot extending in a direction longitudinally of said vehicle chair, and means for securing said foot to said vehicle floor.

2. The structure of claim 1 in which said hollow foot has bolt openings at its bottom ends and has its upper end portions cut away at an angle to provide vertical access to said bottom bolt openings.

3. The structure of claim 2 in which said hollow foot is provided with side openings near its ends and an end closure is equipped with inwardly-extending spring wings equipped with outwardly-extending rivet lugs engageable with said side openings.

4. In combination with the floor of a vehicle, a chair having a pedestal equipped with an elongated hollow foot having its bottom ends provided with bolt openings, bolts extending through said openings to anchor said foot bottom to said floor, said foot being cut away at its upper end portions to provide vertical access with a socket wrench to said bolts, and closure means for said foot ends.

5. The structure of claim 4 in which said upper foot ends are cut away at an inclination of about 45°.

6. The structure of claim 4 in which said foot openings are releasably closed by end caps.

makes home furnishings, which is dinette furniture, they make auditorium seating, they make commercial seating.

"Q What do you mean by commercial seating?

"A The type of thing you're sitting in right now, office chairs, that type of thing. They make carrels for commercial, for university usage. They make tables for both the home furnishing and for commercial usage, such as the one we are sitting at. Then we are involved in a lot of special items for the Government, GSA, such as wardrobes, special tables, special chairs, that type of thing. That is basically what the Howell St. Charles operation is performing."

MR. LYON: Page 15:

"Q Referring now to Defendant's Exhibit MB, could you identify that for me, please?

"A Basically this is a drawing of an anchoring base that we are presently manufacturing, and have manufactured since 1963, for what we term as our sequence seating series.

"This drawing happens to be a permanent installation type of base in that it is bolted

directly to the floor. It has a modified tubular horizontal base section and vertical base section with an attachment on top for mounting it to a central spline which the seats are attached to to form the entire sequence seating group.

"Q What is the drawing number on MB?

"A B-317.

"Q And what is the date of the drawing, Defendant's Exhibit MB?

"A 11-1-63.

"Q Are you familiar with the structure disclosed and illustrated on the drawing, Defendant's Exhibit MB?

"A Yes, I am.

"Q Referring to the drawing, Defendant's Exhibit MB, could you identify what member there forms the upright portion you just mentioned?

"A This is the rectangular tubing, which is termed the pedestal leg, three quarters by an inch and a half 16 gauge cold rolled steel.

"Q Could you put a letter 'A' on the upright member you have just described?

"Would you draw a lead line?

"Q Would you identify the inverted channel with the letter F, please?

"And can you show generally where the resistance welding to the inverted channel would be by the letter G?

"A It is an interrupted weld that goes the full length of the major leg channel, and it is shown as Section G; it is shown as a solid line between the inverted channel and the major base channel.

"Q Is there another channel member in the Section AA?

"A Yes, there is. That is a solid upright channel in that it forms the solid base for the entire leg assembly when it is all assembled.

"Q Would you identify that, please, with the letter H?

"And what is the purpose of the channel identified by the letter H?

"A To give you solid contact with the floor and distribute the entire load over a larger area. The entire assembly form is then a modified closed tube.

"Q Referring to the side elevation of the pedestal, could you briefly describe how that pedestal is secured to the floor?

"A In this specific instance this one has two 5/16 18 bolts that insert through the leg channel into accepting Ackerman-Johnson inserts that have been pre-installed into a concrete floor.

"The leg itself is positioned over the top of the Ackerman-Johnson inserts. A bolt is assembled through the base leg into the Ackerman-Johnson and tightened, forming a solid base assembly to the floor."

MR. LYON: Page 21:

"Q Does the bolt identified with the letter J actually pass through any aperture in the pedestal foot D?

"A Yes, they do.

"Q And where are those apertures located?

"A They are coincidental with the Ackerman-Johnson location.

"Q Where are they positioned structurally in the foot?

"A One fore and aft of the pedestal column.

"Q And what members do the apertures actually go through in the foot identified by the letter D?

"A They go through the sub-letter E, the sub-letter G, and the sub-letter -- as you were -- the sub-letter G was a weld. They go through the sub-letter E, sub-letter F, and sub-letter H.

"Q What kind of a design is used for the front and rear ends of the pedestal, letter D, shown on Defendant's Exhibit NB?

"A All it is is a closed formed sheet metal section that has been formed up, closed in a die, and then welded shut so that you in fact have a completely integral foot giving you a tubular section appearance."

MR. LYON: Page 22:

"Q I show you what has been marked as Defendant's Exhibit NC. Can you identify what that is for me, please?

"A That is an installation, a picture of an installation that we made at the Church of

the Brethren in Eastern New Jersey, showing the application of the subject base mounted directly to the spline, and the seats in turn mounted to the spline, completing the sequence group.

"Q Do you recall approximately when the job pictured in Defendant's Exhibit NC was done?

"A Somewhere in the neighborhood of 1964 or '65. I can't definitely point it any closer than that.

"Q Referring to the catalogue, is there any way to tell when this catalogue was published?

"A On each catalogue we prepare we have a copyright date. The copyright date of this catalogue, which is catalogue No. 34, is 1966.

"Q Is the picture that is shown on Defendant's Exhibit NC also in the catalogue, Defendant's Exhibit NF?

"A Yes, it is.

"Q Are you referring to a particular page in that catalogue?

"A It is on page 34. It is not marked as such, but it is on the front of page 33."

has concealed fasteners. The same is true with the 245 chair, on page 19, has concealed fasteners. The space saving chair, the 130, on page 20, has concealed fasteners."

MR. LYON: Page 40:

"Q If, from an aesthetical standpoint, you had wanted to conceal the fasteners shown in Defendant's Exhibits NB and NC, in your opinion could you have concealed it in the 1963 era?

"Mr. Van Dyke: Could I hear the question, please?

"(Question read by reporter.)

"I guess I object to the question. It is purely hypothetical.

"A Using the design as shown in drawing B-317, which is your Exhibit NB, we probably would not have used that specific design.

"We would probably have used a rectangular tube in that we would have sheared both ends on an angle to accommodate a pierced hole inside of it, taking a bolt, run it through the exposed section, and then capped the ends.

"Q Do you believe it would have been within the engineering expertise of the Howell

Company in 1963 to make the type of structure that you have just described?

"A No doubt about it.

"Q Did you have other pedestal type of members that used a tubular foot from end to end?

"A Yes, we did.

"Q I refer you to Defendant's Exhibit NG, could you describe that for me, please?

"A This drawing is a drawing of a table base that has been used since 1962, which is a rectangular tubular section that is coincident with the floor, and then has two other rectangular tubular sections arising vertically from that. The base tube is sheared, flapped on either end, giving us the aesthetic appearance of a truncated cone closed on both ends."

THE COURT: Let the record show the Court overrules the objection of the plaintiffs to the questions on page 40.

MR. LYON: Page 45:

"Q Have the pedestals shown in Exhibits NB through NJ been the standard of the Howell Company with respect to this type of furniture since approximately 1962?

Supreme Court, U. S.
FILED
MAR 23 1979
MICHAEL RODAK, JR., CLERK

IN THE

Supreme Court of the United States

OCTOBER TERM, 1978

No. 78-1304

AMERICAN SEATING COMPANY,

Petitioner,

v.

NATIONAL SEATING COMPANY,

Respondent,

BRIEF IN OPPOSITION TO PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

By: Charles B. Lyon
Maky, Renner, Otto & Boisselle
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IN THE

Supreme Court of the United States

OCTOBER TERM, 1978

No. 78-1304

AMERICAN SEATING COMPANY,

Petitioner,

v.

NATIONAL SEATING COMPANY,

Respondent,

BRIEF IN OPPOSITION TO PETITION FOR A WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

I.

OPINIONS BELOW

The opinions in this case by the Northern District of Ohio, Eastern Division and the Sixth Circuit Court of Appeals are properly noted in the Petition and included in Petitioner's appendix. However, the Petition for Certiorari, while mentioning the Sixth Circuit's denial of a Petition for Rehearing, did not indicate that such Petition for rehearing was based upon substantially the same arguments now being advanced. In denying rehearing, the Sixth Circuit held as follows:

> Upon consideration of the Petition for rehearing we are of the view that the issues of this case were adequately treated in our opinion and that there is no merit in the petition for rehearing. (RA 1)

II.
QUESTIONS PRESENTED FOR REVIEW

The four questions presented by the Petition are based upon Petitioner's interpretation of extremely limited portions of the record, which interpretation is inconsistent with specific findings of the District and Appellate Courts and with the extensive record of this case. Removing Petitioner's improper interpretation of the record and the arguments based thereon, the sole issue presented by the Petition is as follows:

> In the well developed factual context of the record presented by this case, is the opinion by the 6th Circuit, which affirmed en toto the opinion of the District Court, that U.S. Patent No. 3,729,226 ('226 patent) is invalid, as being anticipated (35 U.S.C. § 102,) obvious (35 U.S.C. § 103) and indefiinite (35 U.S.C. § 112), inconsistent with opinions in other circuits and/or with other opinions by this Court?

Respondent, National Seating Co. ("National"), respectfully submits that there is no such inconsistency and that the Petition should accordingly be denied.

III.
STATEMENT OF THE CASE

The '226 patent (A30) discloses a transit bus chair including two fixed back seats mounted on a beam frame supported by a connection to the bus wall at one end and by a pedestal at its center. Such pedestal is of inverted T configuration and includes an upright column (of undisclosed construction) connected to the beam frame at its top and connected to a tubular foot at its bottom. The tubular foot is secured to the floor by fasteners passing through the base plate, with the fasteners being selectively concealed by removable covers. The only advantages alleged for such transit bus chair in the '226 patent were

maximum clearance between chairs, improved floor cleaning, and increased leg room and storage space beneath the chairs.

After nine days of trial with over 1,500 pages of trial transcript and over 125 exhibits, the District Court specifically compared the structure of the '226 patent to the prior art structure and found that all the '226 claim elements were old (All, 12), that the '226 claimed combination was old (All), that all the advantages for the chair alleged in the '226 patent were old (A8, 9), that the transit chair claimed did not provide a synergistic result (A13) and that the prior art introduced at trial was better than the prior art considered by the Patent Office thereby weakening the presumption of validity (A13). These findings of fact were affirmed by the Sixth Circuit on the bases that they were supported by substantial evidence and were not clearly erroneous (A25-28)[1]. These findings properly provide the foundation for the holdings that the prior art anticipates and makes obvious the claimed invention and that the claimed invention is invalid for indefiniteness (A17, 29).

With respect to the prior art, the courts primarily relied upon National's Greyhound Tour Coach chair sold in 1956 (DXAQ, BA, RA 2) and American's round base

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[1] After comparing the prior art advanced at trial to the prior art cited by the Patent Office, the Sixth Circuit went one step further and found the presumption of validity totally destroyed "because the concepts embodied in the uncited prior art possess the most relevance in the determination of patentability . . ." (A23) Petitioner obviously knew about its own prior art round base chair but failed to call the Patent Office's attention to the same. Petitioner's failure to disclose this prior art chair to the Examiner does not meet its "uncompromising duty of disclosure" to the Patent Office, thereby to establish still another basis for invalidity or unenforceability of the '226 patent. *Charles Pfizer & Co. v. FTC*, 401 F.2d 574, (6th Cir. 1968), *cert. den.* 393 U.S. 1022 (1969), and *Buzelli v. Minnesota Mining & Manufacturing Co.*, 521 F.2d 1162, 1166 (6th Cir. 1975).

chair sold in 1969 (DXEJ, TA, RA 3). Compared to the '226 patented chair, such American round base chair included identical seats mounted on an identical frame supported by an identical wall connection and a round base pedestal positioned at an identical center position relative to the frame, all as admitted by the patentee (A9). Such center round base pedestal, which was previously used for lecture room seating (RA4), included a hollow tubular upright connected at its top to the beam frame and connected at its bottom to a round plate forming the foot. Such foot was secured to the floor by fasteners passing therethrough, with the fasteners being selectively concealed by removable covers. Contrary to Petitioner's arguments that significant differences exist between such round base chair and the bus chair claimed in the '226 patent (Pet. at 10), the District Court and Appellate Court both specifically found that the only difference between these chairs was in the shape of their feet, i.e. round vs. tubular. (A9, 25-6) The Courts then went on to find that this was no difference at all since the two pedestals were fully equivalent supports (A10, 26).

Moreover, both equivalent pedestals were known prior to the '226 patent as established, among other ways, by Petitioner admitting the prior art status of inverted T tubular pedestals for chairs and tables (Req. for Adm. 13) and by the patentee admitting he had seen inverted T tubular pedestals for tables prior to his conception of the '226 patented chair (RA 5-6). In fact, both types of equivalent pedestals for lecture room chair support functions were previously interchangeably used as a mere matter of choice (DXNF, p.32, RA 7-9) by the Howell Co., a direct competitor of Petitioner in such lecture room seating! The '226 patented chair concept constitutes no more than a well known choice of whether to interchange one well known inverted T tubular pedestal for another equivalent well known inverted T round base pedestal in a well known

combination for a well known seat support result. It is no wonder the Sixth Circuit held that

> the ['226] patent in suit is just 'as flimsy and as spurious' as that involved in *Great A. & P. Tea Co.* [*v. the Supermarket Corp.*, 340 U.S. 147, 158 (1950)] (A29)

IV.

REASONS FOR DENYING WRIT

A. THE HOLDING OF ANTICIPATION IN THIS CASE IS AN APPLICATION OF THE WELL RECOGNIZED TEST OF ANTICIPATION TO THE UNREBUTTED FACTUAL FINDINGS.

1. To anticipate, all the claim elements or their equivalents must be found in one single description or structure.

Petitioner has argued that a single prior art teaching must be structurally identical to the claim elements to anticipate and thus invalidate the patent under 35 U.S.C. § 102 for lack of novelty. To the contrary, the Circuit Courts have announced, with some slight variation in language, the test that "[i]n order to anticipate an invention, it is necessary that all the elements of the invention *or their equivalents* be found in one single description or structure *where they do substantially the same work in substantially the same way.*" (Emphasis added.) *Shanklin Corp. v. Springfield Photo Mount Co.*, 521 F.2d 609, 616 (1st Cir. 1975), *cert. den.* 424 U.S. 914 (1976); *Kahn v. Dynamics Corp. of America*, 508 F.2d 939, 943 (2d Cir. 1974), *cert. den.*, 421 U.S. 930 (1975); *W. L. Gore & Associates, Inc. v. Carlisle Corp.*, 529 F.2. 614, 621 (3rd Cir. 1976), insignificant differences; *Butler v. Helms*, 550 F.2d 954 955-6 (4th Cir. 1977); *Hughes Tool Co. v. Ingersoll-Rand Co.*, 437 F.2d 1106, 1108-9 (5th Cir. 1971), *cert den.* 403 U.S. 918, 91 S.Ct. 2230, 29 L. Ed. 2d 696 (1971); *Allied Wheel Prods. v. Rude*, 206 F.2d 752, 760 (6th Cir. 1953);

Amphenol Corp. v. General Time Corp., 397 F.2d 431, 437-8 (7th Cir. 1968); *Greening Nursery Co. v. J and R Tool and Mfg. Co.*, 376 F.2d 738, 740 (8th Cir. 1967); *Pierce v. Muehleisen*, 226 F.2d 200, 203 (9th Cir. 1955); *Scaramucci v. Dresser Indus., Inc.*, 427 F.2d 1309, 1314-16 (10th Cir. 1970). The District Court and Appellate Court applied this well established standard for application in the present case.

Petitioner has attempted to criticize the use of this test on the basis that "the cases provide no definition of what is meant by 'or their equivalents'" (Pet. 11). To the contrary, consistent with the very definition of equivalents given in the test for anticipation, this Court has long provided the same definition for equivalency in patent law as follows:

> If two devices do the same work in substantially the same way, and accomplish the same result, they are the same, *even though they differ in name, form or shape. Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 608, 70 S.Ct. 854, 94 L.Ed. 1097 (1950).

The last phrase of the quote was emphasized by the Sixth Circuit in this case in finding that the prior art round base chairs differing only in "foot *shape*" from the '226 patented chair are equivalent or the same as the '226 patent chair for purposes of 35 U.S.C. § 102. (A25) This finding is consistent with the long recognized principle that "differences in configuration only are not patentable". *National Connector Corp. v. Malco Mfg. Co.*, 392 F.2d 766, 770 (8th Cir. 1968), *cert. den.* 393 U.S. 923 (1968). In finding nothing novel in changing a round pin to a flat pin, the 8th Circuit in *National Connector* quoted from *Graham v. John Deere Co.*, 383 U.S. 1, 10 (1966) wherein Justice Clark cited Thomas Jefferson's comment that

> A mere change of form should give no right to a patent, as a high quartered shoe instead of a low one, a round hat instead of a three square, or a square bucket instead of a round one.

Similarly, American's mere change of form from a round plate for a foot to a well known rectangular tube for a foot gives no right to a patent.

2. The Sixth Circuit and Northern District of Ohio Made Lengthy Structural and Functional Comparisons of the Prior Art Chairs to the '226 Patented Chair to Make the Factual Finding of Equivalents.

Petitioner has argued that the opinion in this case in finding anticipation ignored structural comparisons and instead merely held that there was functional equivalency between the prior art round base pedestals and the patented inverted T pedestal with tubular foot. This argument, which does contain Petitioner's admission of functional equivalency between the prior art and the patented chairs (Pet. 6, 9), conveniently overlooks large portions of the opinions by both Courts dealing directly with structural comparisons.

Specifically, the opinions included drawings of the prior art round base center pedestal chairs as well as the '226 patented center pedestal chair. These drawings were explained by the courts in specific detail by describing the structural content of the American round base center pedestal chair, the National Tour Coach center pedestal chair, and the subsequently patented chair. Such description of the prior art chairs applied the reference numerals included in the '226 patent to the prior art chair drawings, thereby to show the direct one-to-one relationship between the structural elements of the prior art round base chairs and the structural elements of the '226 patented chair. (A7-10, 23-25)

Since the round base American chair has been found to be identical to the '226 patented chair except for the shape of the foot, anticipation of the '226 patented chair by the prior art American round base chair under the well

recognized test for anticipation set forth above is established by the following comparison using the trial court's numerals and description to show that the differently shaped pedestal feet are doing the "same work, in substantially the same way to accomplish the same result":

Prior Art Round Base Foot	Tubular Foot in '226 Patent
Foot base plate 16 has fore and aft fasteners 19 relative to the column positioned as required by the bolting pattern to secure the foot to the floor;	Base plate 16a has fore and aft fasteners 19 relative to the column positioned as required by the bolting pattern to secure the foot to the floor;
The fasteners 19 are selectively concealed by removable covers 20, 20A;	The fasteners 19 are selectively concealed by removable covers 20;
Removal of the covers 20, 20A provides tool access to the fasteners 19;	Removal of the covers 20, 20A provides tool access to the fasteners 19;
The base plate 16 is attached to the bottom of a hollow column 15 positioned at the center of the chair.	The base plate 16a and tube 16 are attached to the bottom of a hollow column 15 positioned at the center of the chair.

In unrebutted testimony, Mr. Edwards, National's designer, compared National's prior art round base pedestal foot to the '226 patent foot in accordance with the above chart and stated his opinion of the direct equivalence therebetween (RA 10-13). Such pedestal feet have substantially the same structure, performing substantially the same functions in substantially the same way and are thus equivalent feet under the patent law. *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 607, 70 S.Ct. 854, 856 (1950).

After making the specific structural analysis of the prior art and patented chairs, the District and Appellate

Courts went on to find that all of the functions for the inverted T pedestal defined in the '226 patent, i.e., aesthetics, ease of cleaning and maintenance, ease and safety of passenger egress and ingress, and increased leg and storage room under the seat, were already present in the round base chair (A8, 9). In this regard, the Sixth Circuit held:

> In our opinion it is patently obvious that the round base seats furnish, in the same manner, that is, by the use of center pedestal floor support, the identical advantages over aisle leg seats. (A25)

Contrary to Petitioner's arguments, this holding is an express statement that the specific prior art structure involved (center pedestal floor supports) provides the same functions in the same manner as the patented center pedestal. This finding is further supported by American selling the round base chair as an option to the subsequently developed inverted T tubular base chair for approximately five years (PX132, RA14) as well as by American arguing to the Patent Office in its patent application directed to the round base center pedestal chair that

> [t]he advantages of such a [round base] construction are apparent: ingress and egress of passengers in both seats is greatly facilitated. Seating comfort is enhanced because of the greater leg room and lack of obstruction, additional space is provided for storage of bulky objects, the aisle is free of foot obstruction, the appearance of the vehicle looking down the aisle is enhanced, etc. (DX SP, RA15)

The finding of anticipation based upon the identical American chair having an equivalent foot is, as the Sixth Circuit recognized herein, a "determination of fact which cannot be disturbed unless clearly erroneous." *Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 609-10, 70 S.Ct. 854 (1950).

3. The Primary Case Cited by Petitioner Does Not Support Petitioner's Contention of Inconsistency In Decisions, But Instead Supports and Is Consistent With the Courts' Holdings of Anticipation Herein.

Petitioner argues that "the Sixth Circuit decision on anticipation is in conflict with its concurrent [earlier] *Nickola v. Peterson* [580 F.2d. 898 (6th Cir. 1978)] decision . . . ." (Pet. 6) To the contrary, an analysis of *Nickola* shows that indeed it is consistent with the opinions in this case and fully supports the Courts' holdings of anticipation.

Specifically, the Sixth Circuit in *Nickola* indicated that one of the elements of the claimed combination was not present in the best single prior art structure. The finding was stated as follows:

> There was no evidence that gas meters had been mounted on electric meter pedestals before Nickola's invention, i.e. that Nickola's *combination* was old. 580 F.2d 898, 907. (emphasis in original)

In contrast, both Courts in this case have found *the entire combination to be old* in the round base pedestal chairs (All, 27). Therefore, *Nickola* does not apply to the present case.

Moreover, at the conclusion of its discussion of the deficient combination in the prior art, the Sixth Circuit in *Nickola* stated that the proper test for anticipation was "substantial identity" as set forth in *Monroe Auto Equip. Co. v. Heckethorn Mfg. Co.*, 332 F.2d 406, 414 (6th Cir. 1964), *cert. den.*, 379 U.S. 888 (1964). As stated in *Monroe*, substantial identity for anticipation means that "all the elements of the invention or their equivalents be found in one single description or structure where they do substantially the same work in substanitally the same way." In contrast to Petitioner's arguments that such test is dicta (Pet. 11), the 6th Circuit in *Monroe* specifically applied this test in finding that a prior art vehicle suspension device invalidated the vehicle suspension device claimed in the patent in that suit as follows:

> These facts clearly demonstrate that the Knoedler device was prior to Patent '938, that it consisted of substantially the same elements operating in the same manner, and that it was sufficiently reduced to a public use. We hold that these facts establish anticipation . . . .[2]

The courts in this case applied the same test. Therefore, the anticipation holdings in this case are an application of such well recognized test to the unrebutted structural and functional findings directly equating the prior art round base chairs to the '226 patented chair. Accordingly, the petition does not present an issue under 35 U.S.C. § 102 requiring review by this court.

B. IN FINDING THE '226 PATENT CLAIMS OBVIOUS, THE DISTRICT AND APPELLATE COURTS APPLIED THE TESTS AND GUIDELINES FOR OBVIOUSNESS ANNOUNCED BY THIS HONORABLE COURT.

In finding obviousness, the Trial and Appellate Courts carefully followed the basic obviousness tests of *Graham v. John Deere* by extensively analyzing the scope and content of the prior art, by comparing the prior art to the '226 patent to determine if any differences exist therebetween, by determining the level of skill in the art, and by then finding obviousness and thus invalidity under 35

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[2] For other exemplary cases using equivalents to find anticipation, see *Kahn v. Dynamics Corp. of America;* supra; *Hughes Tool Co. v. Ingersoll-Rand Co.*, supra; *Kiva Corp. v. Baker Oil Tools, Inc.*, 412 F.2d 546, 552-3 (5th Cir. 1969), *cert. den.* 396 U.S. 927, 90 S.Ct. 262, 24 L.Ed. 2d 226 (1969); *Amphenol Corp. v. General Time Corp.*, supra; *Deep Welding, Inc. v. Sciaky Bros.*, 417 F.2d 1227, 1234, 1240 (7th Cir. 1969), *cert. den.* 397 U.S. 1037 (1970); *Pierce v. Muehleisen*, supra; and *Scaramucci v. Dresser Indus., Inc.*, 427 F.2d 1309, 1314-16 (10th Cir. 1970).

U.S.C. § 103 against this background. Petitioner has not alleged any failure by the Courts in this case to follow these primary tests. Instead, Petitioner is asking this Court to reanalyze the facts contained in the extensive record as they allegedly relate to one of the secondary considerations of obviousness.

Specifically, Petitioner contends that the Sixth Circuit erred by disregarding evidence of ". . . actual unobviousness by an actual person [Mr. Edwards of National] skilled in the art at the time of the invention . . ." (Pet. 12) Such contention improperly ignores specific evidence that the invention was in fact obvious to Mr. Edwards, improperly ignores evidence and factual findings by the Courts as to what other people of ordinary skill in the art were doing showing obviousness, and improperly uses its biased interpretation of the limited facts to manufacture an alleged inconsistency with the case law on secondary considerations of obviousness when, in fact, no such inconsistency exists. Respondent recognizes the inadequacies of petitioner's contention because of the oft repeated admonition that the Supreme Court does

> not grant certiorari to review evidence and discuss specific facts. *United States v. Johnson*, 268 U.S. 220, 227 (1925).

However, Respondent feels compelled briefly to discuss a few facts that show the clear obviousness of the '226 patent to one and all of ordinary skill in the art as emphatically found by both courts.

1. The Facts Establish That the Substitution of One Well Known Pedestal Foot For Another Well Known Pedestal Foot is a Mere Matter of Obvious Choice Having No Patentable Merit.

> Making a known choice to meet known requirements . . . is no more ingenious than selecting the last piece to put into the last opening of a jig saw puzzle. It is not invention. *Sinclair & Carrol Co. v. Interchemical Corp.*, 325 U.S. 327, 335, 89 L.Ed. 1644, 65 S.Ct. 1143 (1945)

The following established activities of National, Heywood Wakefield, American and Howell show that the patentee in this case was indeed making such a previously known choice for previously known seating requirements.

In 1959 and 1963, Mr. Edwards of National designed a tubular foot with selectively concealed fasteners passing through the base plate to secure these chair pedestals to the floor, with such fasteners being selectively concealed by removable covers. (DX VQ, VW, RA 16 and DX FJ, RA 17). Although not commercially manufactured because of the relative cost of stainless steel at the time (RA 18), these National tubular foot designs have been clearly established by dated drawings (RA 17, DX DJ), by pictures of prototypes (RA 16), and by advertising that was distributed to the industry (DX DJ) including American (RA 19-21). This suit has the effect of attempting to keep Mr. Edwards from using his own previously developed tubular foot in a well known seat combination, thereby to diminish improperly the known resources available to skillful men. *Great A & P Tea Co. v. Supermarket Corp.*, 340 U.S. 147, 152, 95 L.Ed. 162, 71 S.Ct. 127 (1950).

Furthermore, in designing National's accused chair, Mr. Edwards, in unrebutted testimony, stated that his work on the center pedestal project was sporadic and did not include very many designs (RA 22-25), that he did not know about and did not copy American's center pedestal seat (RA 26-28), and that he saw an inverted T tubular pedestal on the prior art Mitchell conference table in the engineering department of National and merely used such Mitchell pedestal design concept to support his bus seat (RA 29-31). Such independent design, using as a matter of choice the prior art Mitchell inverted T tubular

pedestal (PX 68, RA 32, DX AT, RA 33), further establishes obviousness since the accused seat was independently developed in response to market stimuli without assistance from the patent owner. *Continental Oil Company v. Whitco Chemical Corp.*, 484 F.2d 777, 782 (7th Cir. 1973) and *Custom Paper Prods. Co. v. The Atlantic Paper Box Co.*, 469 F.2d 178, 180 (1st Cir. 1972).

Similarly, in 1968, Heywood Wakefield, a manufacturer of various types of furniture and transportation seating (RA 34), was asked by the Budd Company to build chairs for the Plane Mate buses used to convey passengers between the airport terminal and the airplanes. Knowing the parameters for this project, Heywood Wakefield specifically considered using either inverted T tubular pedestals or inverted T cast pedestals to support the frames and fixed back seating required (RA 35-48). To reduce weight and projected costs, the choice was to make the Plane Mate pedestal as a casting rather than a tubing fabrication (RA 41). Such Heywood Wakefield inverted T cast pedestal included a tubular upright column, an elongated hollow foot formed as a channel with base plates at each end, and fasteners recessed in the base plates and selectively concealed by removable covers (DX CL, pp 1, 7, RA 49, 50, DX TA, RA 3). The District and Appellate Courts agreed that the Heywood Wakefield inverted T pedestal and the inverted T tubular pedestal of the '226 patent have almost identical structure (A 12, 27), as clearly supported by Heywood Wakefield merely choosing one over the other for commercial reasons and by American's own choice process.

In this regard, prior to the patented tubular pedestal, American had designed a channel shaped cast foot with selectively covered fasteners at its ends (PX 156). In making the "conception sketch" of the '226 patent pedestal, Mr. Barecki, the patentee, merely chose to draw superimposed fabricated tubes over the previously developed

cast pedestal. In fact, although Petitioner now attempts to emphasize the alleged importance of a tubular foot, this emphasis is inconsistent not only with Mr. Barecki's admission that tubes, at the time of the invention, were equivalent to channels (RA 51) but also with the original claims presented to the Patent Office by Petitioner in the '226 application which did not specifically claim a "tube" at all but instead merely claimed an elongated hollow foot (PX 119, RA 52-3). This "elongated foot" hollow foot definition would encompass many structural forms, including, of course, the prior art cast foot of Heywood Wakefield's inverted T Plane Mate pedestal.

Finally, the Howell Company, a competitor of American, manufactured lecture room seating consisting of plural fixed back seats mounted on a beam frame supported by spaced pedestals (DX TA, RA 3). One such Howell pedestal consisted of an upright tubular column with an elongated rectangular base plate bolted to the floor (DX NF, RA 9)[3], while an alternative Howell pedestal consisted of an inverted T tubular pedestal bolted to the floor (DX TA, RA 3, DX NF, RA 9, RA 54-59). These optional pedestals were illustrated right next to one another under the caption "leg detail" on page 32 of Howell's 1966 advertising brochure (DX NF, RA 9). Clearly, the use of the rectangular base pedestal or the inverted T tubular pedestal as thus illustrated in Howell's catalog was a mere matter of routine choice in 1966 for Howell and/or its customers. This is exactly the pedestal choice made approximately four years later by the patentee in going from American's prior round base pedestal to the well known inverted T tubular pedestal, which well known

[3] This "rectangular base" pedestal is identical to American and National's round base pedestals described above except for being rectangular (like the '226 tubular foot) rather than round and for including one fore and one aft floor fastener (like the '226 tubular foot) rather than plural fore and aft floor fasteners.

choice is clearly devoid of any patentable merit. *Sinclair & Carrol Co. v. Interchemical Corp.*, supra.

In other words, replacing the round base pedestal in American's prior art round base chair with the admittedly well known inverted T tubular pedestal of the prior art, while otherwise maintaining all the teachings of the primary round base chair (including floor fasteners through the base plate selectively concealed by removable covers) is a well known matter of choice and thus an obvious combination of teachings under 35 U.S.C. § 103. This choice is the "work of a skillful mechanic[4], not that of an inventor". *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 282, 47 L.Ed. 2d 784, 96 S.Ct. 1532 (1976).

2. The Case Law Cited By Petitioner, Which Requires The Patent To Be Judged Against The Full Context of The Prior Art, Establishes The Irrelevancy of Edwards Later Sporadic Work And is Consistent With The Decisions In This And Other Cases.

With respect to the obviousness holdings as they relate to secondary considerations of patentability (Point II of Petition), petitioner limits its alleged error to the contention that the courts "disregarded evidence that the device was actually unobvious to one [Edwards] skilled in the art." (Pet. 11) Petitioner cites *Illinois Tool Works, Inc. v. Sweetheart Plastics, Inc.*, 436 F.2d 1180, 1182 (7th Cir. 1971) and *Graham v. John Deere*, 383 U.S. 1, 12, 86 S.Ct. 684 (1966), apparently for support of its proposition that the "abortive" work of one man is central to the obviousness-unobviousness finding. Quite to the contrary, such

[4] This choice was previously presented to customers of Howell; therefore, the choice didn't even require a "skillful mechanic" level of experience for its ready resolution. Mr. Nystedt of Howell testified that the '226 patent consisted of obvious structure undoubtedly within the engineering skill of Howell in 1963 (RA 60-61).

cases indicate that the efforts and work of one man skilled in the art should be evaluated and judged in the context of the efforts and work of all men skilled in the art during the relevant time frame.

In this regard, the 7th Circuit in the *Illinois Tool Works* case in determining the obviousness issue held:

> We believe it is far more telling that not only did Davis fail to outrace Edwards to the marketplace or the patent office with an operative product like the '360 invention, but Miller, Politis (who introduced Edwards to sheet thermoforming of plastic cups) and defendants' witness Pfohl also failed to do so as apparently did all others skilled in the art. 436 F.2d at 1187.

Thus Davis' abortive efforts were measured in the more important overall context of the abortive efforts of everyone else in the industry.

In *Graham v. John Deere,* unsuccessful attempts to develop the device began in approximately 1947 and continued thereafter until the patented device consisting of small nontechnical mechanical differences over the prior art was developed in 1956. This Court determined that such nontechnical differences were rendered apparent by a 1953 prior art patent and that

> unsuccessful attempts to reach a solution to the problems confronting Scoggin before that time [1953] became wholly irrelevant.

Again, the previous unsuccessful efforts were judged in the context of the entire body of art and of those skilled in that art to determine the irrelevance of the unsuccessful efforts.

Applying the *Illinois Tool Works* and *Graham v. John Deere* cases to the facts of this case, even if Edwards' design attempts after 1970 showed unobviousness to him, which Respondent strongly denies for the reasons set forth above, such attempts are irrevelant since they occurred after

Howell's 1966 chairs, Heywood Wakefield's 1969 chairs, and American's 1969 chairs found clearly to invalidate the patent. The evidence establishes that people skilled in the art did not previously have unsuccessful attempts or failures but instead rapidly developed equivalent anticipating chairs having inverted T round pedestals that could be interchanged with the well known inverted T tubular pedestal as a matter of known choice in the art prior to the '226 patent.

In making specific findings regarding the full scope of prior art chairs, the District and Appellate courts fully evaluated the relevant evidence regarding the secondary consideration questioned by American, i.e. the prior design attempts of others on center pedestal chairs. Therefore, the opinions in this case fully considered and made findings on the relevant secondary consideration evidence questioned by Petitioner and thus complied with the footnote suggestion in *Nickola v. Peterson*, 580 F.2d 898, 911 (6th Cir. 1978), that such information should normally be considered.[5] Furthermore, in a case where obviousness is clear, as the 6th Circuit held herein after characterizing the '226 patent as "flimsy and spurious" (A 29), secondary factors cannot tip the scales toward patent validity. *Graham v. John Deere Co.*, 383 U.S. 1, 35-36, 86 S.Ct. 684 (1966).

[5] Petitioner argues that the Sixth Circuit held that the "District Court did not consider all the relevant evidence in making its determination of obviousness-nonobviousness". (Pet. 14). To the contrary, the Sixth Circuit merely said that the District Court didn't consider and make findings on specific limited contentions by Petitioner. Clearly, the District Court considered all the evidence advanced during the lengthly trial and, for the reasons set forth herein, made lengthly findings of fact and conclusions of law on the point of alleged error. In any event, "the trial court need not make specific findings on all facts and evidentiary matters brought before it, but need find only the ultimate facts necessary to reach a decision in the case." *United States v. F. D. Rich Co., Inc.*, 439 F.2d 895, 899 (8th Cir. 1971).

"Any theory that secondary considerations must be given weight before a determination of obviousness can be made was laid to rest in *Sakraida v. Ag Pro, Inc.*, 425 U.S. [273] at 282 [1976]". *Digitronics Corp. v. N.Y. Racing Assn., Inc.*, 553 F.2d 740, 748 (2d Cir. 1977), *cert. den.*, 435 U.S. 933 (1977). See *Tokyo Shibaura Elec. Co. v. Zenith Radio Corp.*, 548 F.2d 88, 94-5 (3d Cir. 1977).

For the reasons set forth above, Respondent respectfully submits that the opinions herein as to obviousness are consistent with the decisions of this Court and with the decisions of the circuits as they relate to the limited error alleged. Review by this Court is accordingly unnecessary.

C. PETITIONER FAILS TO RAISE ANY RULE 19 REASONS FOR GRANTING CERTIORARI TO RECONSIDER THE HOLDINGS OF OBVIOUSNESS BASED ON LACK OF SYNERGISM.

Petitioner argues that

> in face of the facts that the patented seat was actually obvious to one skilled in the art, it was unnecessary for the court to consider whether the claimed combination produced a synergistic effect. (Pet. 17)

Such argument is deficient in three respects. First, it is premised on Petitioner's interpretation of only limited facts which are irrevelant and unsupported as discussed above. Second, it is unsupported by any case law citation. Third, it ignores the admonition of this Court on synergism.

Specifically, this Court has repeatedly made the following admonition since 1950:

> A patent for a combination which only unites old elements with no change in their respective functions . . . obviously withdraws what already is known into the field of its monoply and diminishes the resources available to skillful men . . . Courts should scrutinize combination patent claims with a care proportioned to the difficulty and improbability of finding inven-

tion in an assembly of old elements. *Great A & P Tea Co. v. Supermarket Corp.*, 340 U.S. 147, 152 (1950).

In heeding this Court's admonition, the District Court found that all the '226 patent claim elements were old, that the claimed combination was old, and that the old elements did not function in any new or different mode in the combination nor provide any new or different result (A 8-13). Based on these findings, the trial and appellate courts held that the '226 patented chair under 35 U.S.C. § 103 was obvious, among other reasons, because it lacked a synergistic result. Such findings and holdings specifically follow and are in conformance with the standards set forth in *Great A & P Tea Co. v. Supermarket Corp.*, 340 U.S. 147, 155, 71 S.Ct. 127, 95 L.Ed. 162 (1950); *Anderson's-Black Rock v. Pavement Salvage Co.*, 396 U.S. 57, 61, 90 S.Ct. 305, 24 L.Ed. 2d 258 (1969) and *Sakraida v. Ag Pro, Inc.*, 425 U.S. 273, 96 S.Ct. 1532, 47 L.Ed. 2d 784 (1976).

Respondent respectfully submits that the opinions in the present case are consistent with the law of this Court on synergism and that review thereof is inappropriate.

D. PETITIONER HAS CHANGED ITS POSITION BEFORE THIS COURT IN AN ATTEMPT TO RENDER "MOOT" THE FULLY SUPPORTED OPINIONS OF INVALIDITY BASED UPON 35 U.S.C. § 112.

The '226 patent and its file wrapper are admittedly silent regarding any alleged improved energy absorption for the '226 patent. (A 14, 28) Even though the law is well established that undisclosed attributes cannot be relied upon in attempt to support patentability, *Lincoln Engineering Co. v. Stewart Warner Corp.*, 303 U.S. 545, 550 (1938), the trial court received, in its words, "a great deal

of testimony and evidence" (A 13) on the energy absorption issue but then made the following factual findings:

> The asserted inherent safety features of the seat design of the '226 patent relate to the upright column and foot design and would necessarily relate to the tensile strength, gauge, size, shape and type of material used in said upright column and foot. The patent is silent as to any such references. (A 13)

Based on these findings, the trial court held that "[i]f plaintiff bases patentability of its patent on these [energy] absorption features, the patent is invalid as failing to particularly point out and distinctly claim that which it alleges is the subject matter of its patent pursuant to Title 35 U.S.C. § 112" (A 14). Contrary to Petitioner's arguments (Pet. 19), this holding is consistent with and directly reflects the language of the second paragraph of 35 U.S.C. § 112 which reads "the specification shall conclude with one or more claims *particularly pointing out and distinctly claiming* the subject matter which the applicant regards as his invention." (Emphasis added.)

On this issue, the Sixth Circuit held the '226 patent invalid "because it failed to describe particularly that which was claimed to be invented under 35 U.S.C. § 112." (A 29) With respect to the allegations of "inherent" improved energy absorption or crashworthiness, the Sixth Circuit found that it had not been proved by Petitioner and that it was no more than afterthought by Petitioner's counsel (A 28).

In attempting to overcome such holdings, Petitioner argues that Mr. Edwards testified that he could construct the chair shown in the patent. (Pet. 19) While Mr. Edwards did so state, such testimony is irrelevant to the 35 U.S.C. § 112 issue for two reasons. First, he did not testify as to what materials, gauges and shapes would be used in such construction and whether it would have any different

energy absorption characteristics than other seats built by him. Second, the quoted portion of § 112 makes it incumbent on the patentee, Mr. Barecki, to define the alleged improved energy absorption characteristics of the chair as that "which the applicant regards as his invention." The patentee failed to make this "energy absorption" definition.

Petitioner has not raised a reason under Rule 19 to review this holding of invalidity. Instead, rather than trying to buttress patentability on the undisclosed and unproven inherent energy absorption as attempted at the District Court and 6th Circuit, Petitioner has now changed its position allegedly to render the indefiniteness issue "moot" as a result of "Petitioner's disclaimer of basing any patentability on such characteristics." (Pet. 18) In the first place, such disclaimer is ineffective since the 6th Circuit's holding finds the patent invalid under 35 U.S.C. § 112 because of the absence of energy absorption definition irrespective of Petitioner's intentions in presenting this evidence and irrespective of its contentions with respect to such evidence. Secondly, such disclaimer presents a position to this Court which is inconsistent with the position considered below; therefore, Respondent submits that the disclaimer is ineffective and should not be considered under the rule precluding inconsistent positions in the same action. 28 Am. Jur. 2d, *Estoppel and Waiver,* § 69 citing *Norfolk S.R. Co. v. Chatman,* 244 U.S. 276, 61 L.Ed. 1131, 37 S.Ct. 499 (1917). However, even if the disclaimer is considered, the invalidity issue under 35 U.S.C. § 112 would still not be "moot" since the patent is further invalid under such section for overclaiming.

Specifically, the '226 patent claims are all directed to the chair consisting of the entire old combination of seats, frame, wall mount and pedestal rather than particularly pointing out and distinctly claiming the alleged improvement in the foot as required by 35 U.S.C. § 112. In *Lincoln*

Engineering v. Stewart Warner Corp., 303 U.S. 545, 549 (1938), this Court held:

> . . . having hit upon this improvement he did not patent it as such but attempted to claim it in combination with other old elements which performed no new function in its claimed combination. The patent is therefore void as claiming more than the applicant invented.

Cf. *Holstensson v. V-M Corp.,* 325 F.2d 109, 122-126 (6th Cir. 1963) and *Stuckenborg v. Teledyne, Inc.,* 441 F.2d 1069 (9th Cir. 1971), *cert. den.* 404 U.S. 852 (1971). In other words, it is statutorily incumbent upon an applicant for an improvement to a combination to particularize what is old and what is new and to limit the claims to what is new. 35 U.S.C. § 112. *Henry J. Kaiser Co. v. McLouth Steel Corp.,* 257 F.Supp. 372 (E.D. Mich. 1966), *aff'd.,* 400 F.2d 36, 51 (6th Cir. 1968). This was not done by Petitioner and its failure in this regard renders the '226 patent ". . . void as claiming more than the applicant invented." *Lincoln Engineering,* supra.

With respect to 35 U.S.C. § 112, Petitioner has improperly changed its position from that presented to the District and Appellate Courts without raising a Rule 19 ground for review by this Court. Furthermore, the Sixth Circuit's holding of invalidity under 35 U.S.C. § 112 is further supported by the clearly applicable doctrine of overclaiming.

V.

CONCLUSION

For the reasons set forth above, the Sixth Circuit decision in this case is consistent with the decisions of other courts and properly applies the well recognized tests for the issues presented to the facts established in the lengthy

record. Therefore, there is no reason for this court to review the Sixth Circuit's decision, and accordingly, Respondent respectfully submits that the Petition for Writ of Certiorari to the Sixth Circuit should be denied

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IN THE SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1978
No. 78-1304

AMERICAN SEATING COMPANY,
Petitioner,

v.

NATIONAL SEATING COMPANY,
Respondent,

REPLY BRIEF IN PETITION OF WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

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REPLY BRIEF IN PETITION OF WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE SIXTH CIRCUIT

I. SIGNIFICANT DIFFERENCES BETWEEN THE STRUCTURES DEFINED BY THE CLAIMS IN THE '226 PATENT AND THE PRIOR ART CHAIRS WERE RECOGNIZED BY THE SIXTH CIRCUIT AND SHOULD HAVE NEGATED THE HOLDING OF ANTICIPATION.

Of utmost importance in this case is the significant difference between the bus chair defined by the claims in the '226 patent and the round base chairs relied upon by the Court for anticipation. Respondent denies such differences and states in its brief at page 4 that the Sixth Circuit found that the only difference between these chairs was the shape of their feet, i.e., round versus tubular. In referring to this statement of the Sixth Circuit, the respondent ignores the Sixth Circuit characterization of the difference as being a "significant difference" (A 25). Further, this significant difference is evident by a prefunctory comparison of the round base pedestal and the tubular inverted "T" prior art pedestals (A 40).

The very substance of the Sixth Circuit's error with relation to its holding under Section 102 was to ignore these "significant differences" between the round base pedestals and the tubular inverted "T" pedestal which was the very difference between success and failure as evidenced by the fact that the '226 seats with tubular inverted "T" pedestals replaced the aisle leg seats whereas the round base seats did not and in fact were discarded.

II. THE CHANGE OF FORM FROM A ROUND PLATE TO A TUBULAR INVERTED "T" PEDESTAL REQUIRES A DETERMINATION OF WHETHER SUCH CHANGE WAS OBVIOUS UNDER SECTION 103.

Respondent argues on page 7 of its brief that American's mere change of form from a round plate for a foot to a well known rectangular tube for a foot, does not avoid the application of the anticipation test of Section 102 to support a holding of invalidity. In making this argument, respondent relies upon *National Connector Corp.* v. *Malco Mfg. Co.*, 392 F.2d 766, 770 (8th Cir. 1968). A review of that case establishes that the Eighth Circuit did not hold the patent in question invalid because of anticipation but considered the question of obviousness under Section 103 when it stated at page 769:

> "The basic issue, assuming novelty and utility established, concerns 'obviousness' under section 103."

Therefore, the *National Connector* decision supports Petitioner's contention that the Sixth Circuit erred in holding the patent invalid under Section 102. Having found the pedestals were significantly different in shape, it should have then considered only the question of "obviousness" under Section 103. To do otherwise, equates the test under Section 102 to the test under Section 103.

III. THE DECISION IN *NICKOLA* IS NOT CONSISTENT WITH THE OPINION IN THIS CASE.

Respondent argues that *Nickola* v. *Peterson*, 580 F.2d 898 (6th Cir. 1978) is consistent with the opinion in this case because in its finding one of the elements of the claimed combination was not present in the best single prior art structure. However, in the present case all of the elements in the claimed combination are likewise not present in the best

single prior art structure, i.e., the specific foot defined in the claims of '226 patent is not present in the round base pedestal seat structures relied upon by the Sixth Circuit. Therefore, the Sixth Circuit holding of anticipation in this present case is not consistent with the *Nickola* decision.

Respondent attempts to draw an analogy between *Nickola* and the present case by reciting *Monroe Auto Equipment* v. *Heckethorn Mfg. & Sup. Co.*, 332 F.2d 406 (6th Cir. 1964), cert. den. 379 U.S. 888 (1964), for the proposition that the proper test for anticipation is "substantial identity." However, a review of the *Monroe* case establishes that the claimed combination of a "non-metallic spacer sleeve between a shock absorber and a coil spring" were also present in the prior public use device (p. 415). In the *Monroe* case the claims read on the prior art device resulting in anticipation under the Section 102 test. The '226 patent claims cannot possibly be read on the prior round base seats.

IV. IN FINDING THE '226 PATENT CLAIMS OBVIOUS, THE SIXTH CIRCUIT EXPRESSLY DID NOT CONSIDER THE MOST PERTINENT EVIDENCE ON UNOBVIOUSNESS.

Respondent in its brief alludes to some of the evidence which establishes that Edwards, a man held to be skilled in the art, did have available all the prior art relied upon by the Court to invalidate the patent. Despite such knowledge and its abortive efforts to conceive and develop, Edwards was unable to develop a successful single pedestal seat until long after Petitioner had the '226 invention on the market. Therefore, he did not make "a known choice to meet known requirements" as contended by Respondent. To the contrary, Edwards discarded prior art, including the round base seats, upon which the Court relied and eventually adopted the identical foot of the seat of the '226 invention. What better evidence could there be of the actual unobviousness of the invention to an actual person skilled in the art.

All of the facts alluded to by Respondent as to the activities of National, Heywood-Wakefield, American, and Howell, before and approximately at the time that the '226 invention was conceived, is evidence of the prior art available to Edwards during his abortive attempts to come up with a satisfactory and successful single pedestal seat. Barecki, the inventor of the '226 patent broke through these barriers with his unobvious combination and Edwards finally followed suit nearly two years later.

By stating on page 622 (A 29) of its decision that "The District Court, in resolving the obviousness issue, did not make findings with respect to American's contentions. . ." it is clear that the Courts did not consider all of the evidence surrounding the actual attempts of an actual person skilled in the art to design a successful single pedestal seat which is a primary consideration in determining what was obvious or unobvious to one skilled in the art. In their failure to consider such evidence, the District and Appellate Courts committed grave error.

V. PETITIONER'S REASONS FOR GRANTING CERTIORARI BASED ON THE "SYNERGISM" ISSUE FALLS SQUARELY UNDER RULE 19.

Respondent argues that Petitioner's contention that it was unnecessary for the Court to consider whether the claimed combination produced a synergistic effect did not raise any Rule 19 reason for granting certiorari. Such argument has no basis particularly in view of a recent circuit court decision on the issue of whether synergism is an essential requirement for patentability.

In the Seventh Circuit decision of *Republic Industries, Inc.* v. *Schlage Lock Co.*, [not yet reported but included in Petitioner's Expanded Appendix], the Court, after a careful reading of the Supreme Court's rulings in *Anderson's-Black Rock Inc.* v. *Pavement Salvage Co.*, 396 U.S. 57 (1969) and *Sakraida* v. *Ag Pro, Inc.*, 425 U.S. 273 (1976), was

convinced that synergism—while perhaps an analytical tool of dubious value—is *not* a requirement for patentability. The Court stated (A 66):

> Neither *Sakraida* nor *Black Rock* can be cited as prescribing some other, special test for the evaluation of combination claims. Nowhere in these two decisions did the Court hold a synergistic effect to be a necessary condition of patentability; nor did it hold that synergism supersedes a finding of nonobviousness under the *Graham* analysis. To the contrary, each case cited *Graham* with approval. Each turned on whether the claimed invention was nonobvious on the basis of the three-pronged test in *Graham*. In short, we believe that *Sakraida* and *Black Rock*, rather than establishing an additional, different, or substituted test for nonobviousness under section 103, reaffirmed the continuing vitality of *Graham*.

Judge Swygert, in what he referred to as a "realistic appraisal," held (A 67) that synergism is "only a figure of speech." He continued that in many inventions (especially those that are mechanical rather than chemical) it is nonsense to speak of an element "functioning differently in combination than it did outside the combination," or to insist that the combination produce an effect "greater than the sum of the several parts taken separately." He pointed out that a spring or valve "will always function as a spring or valve, alone or in concert with other elements," and that "the overall performance of the combination is always equal to the sum of the functions of its individual components." The Court makes the very point at A 67, 68 that is being made in this petition. Specifically:

> . . .when using the synergism approach to determine whether one element functions differently or whether the whole somehow exceeds the parts one is required to look solely to the operation of the

elements *after* they are combined. This analysis suffers from two defects. First, the test which looks exclusively to the functioning of the individual components after they are combined must necessarily be premised on the assumption that it is always obvious to take known elements and combine them. We find this assumption unsound and not based on fact. It may be that in certain circumstances the very choice of the elements to be selected is not obvious.

* * *

The second and more basic defect with synergism is that section 103 sets as the standard of patentability the nonobviousness of the invention "at the time the invention was made to a person having ordinary skill in the art. . . ." This provision therefore compels the courts to view the invention from the vantage point of the field of art at a specific point in time, i.e., the time the invention was made. See Rich Principles of Patentability, 28 Geo. Wash. L. Rev. 393, 405-06 (1960). From this vantage point the critical question becomes whether the level of skill in the art was such that the combining of the elements in the manner claimed would have been obvious, not in retrospect, but at the time it was done by the inventor.

* * *

Synergism, however, precludes this analysis. Because synergism centers exclusively on the performance of the elements *after* combination and without regard to the obviousness or nonobviousness of *making the combination*, synergism does not comport with the *Graham* mandate to apply section 103.

The Court is urged to adopt this well reasoned approach to the determination of the obviousness-nonobviousness issue.

It is obvious the "synergism" issue falls squarely under Rule 19 in view of two other very recent decisions of the Eighth Circuit, *Reinke Mfg. Co.* v. *Sidney Mfg. Corp.*, [not yet reported but see A 70], and the Tenth Circuit, *Deere & Co.* v. *Hesston Corp.* [not yet reported but see A 89]. In both of these decisions the Courts held that one factor to look at in determining whether the patents meet Section 103 requirements is synergism. Thus, a situation exists in which within the Sixth Circuit two recent cases disagree as to whether "synergism" is a requirement and the Seventh, Eighth, and Tenth Circuits disagree. Accordingly, the issue of "synergism" falls squarely within the context of Rule 19.

CONCLUSION

In conclusion it is submitted that the issues as raised by this Petition should be reviewed by the United States Supreme Court in order to establish an orderly and logical approach which the lower courts can follow and which is so badly needed for the guidance of the patent law profession. Therefore, it is respectfully solicited that this Petition be granted.

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